

APPENDIX 2.7.1-2

PRE-MINE LAND MANAGEMENT INFORMATION

Landowners with property within the Permit Boundary

Ms. Delores Beaudoin – Leocadia Emmil Family Trust

Ms. Beaudoin was interviewed on June 24 and again on July 3, 2007 with regard to the Leocadia Emmil Family Trust, which she represents. The properties within the Permit Boundary discussed during the interview include the SE ¼ Section 33, and the NW ¼, and NE ¼ of Section 34.

No water developments (e.g. permanent/seasonal springs or seeps, groundwater) are found on the portion of the properties within the Permit Boundary. The unnamed tributary that flows through Section 34 was noted to have provided an ephemeral source of water for livestock when used numerous years ago. Ms. Beaudoin noted that the water quality from this tributary was fair, but high in sediment.

All cropland fields in the parcels reviewed have been enrolled in Conservation Reserve Program (CRP) since 1999. The fields are all permanently vegetated in grass and alfalfa mixtures for the purposes of erosion control. The CRP agreements for all enrolled fields expire in 2011. Since 2002, approximately one-third of the enrolled CRP acres have been cut for hay. No specific limitations for agricultural production were noted and no erosional features were noted to occur on the parcels reviewed.

The uncultivated areas occurring along the unnamed tributary in Section 34 has not been tilled due to the limits of topography adjacent to the channel. Grazing has not been implemented on these uncultivated areas due to unreliability of water and the absences of fences that would allow for management separated from the adjacent CRP. Leafy spurge was noted to occur along the channel in the uncultivated areas.

Hunting with firearms and archery equipment is an allowed recreational use on the property. Ms. Beaudoin attributes no economic or other value to recreation land use or wildlife management. There are no existing wildlife or habitat management plans. She listed pheasant, white tailed and mule deer as notable wildlife species that occur on and use the property.

John F. Buckman

John Buckman was interviewed on August 21, 2007 regarding the property he owns in the Study Area. Mr. Buckman owns a small tract of land within the Permit Boundary located in the extreme southeast corner of Section 15. The primary function of this tract is for a residence and associated structures and shelterbelt. Agricultural activities include grazing by horses and occasionally by calves that are confined to small lots on the property owned by Mr. Buckman. These livestock are fed supplemental feed as necessary. Water for livestock and domestic use is provided by a well

located adjacent to the residence. The quality and quantity of the water are reported to be adequate for their current uses.

Larry R. Klein

Mr. Klein was interviewed on June 18, 2007 regarding the uses of the land he owns and operates in the Study Area. The property within the Permit Boundary discussed during the interview is a small parcel (approximately 2.2 acres) located in the NE ¼ Section 33.

No natural or developed water resources exist on the Klein property.

The cropland field in the parcel is enrolled in CRP established through cost-sharing by the North Dakota Game and Fish Department (NDGFD). The cost-sharing equates to participation in the PLOTS program and allows public access without landowner permission. While hunting with firearms or archery equipment is an allowed recreational use on the property, Mr. Klein does not attribute an economic value to the use of the land for recreation or wildlife management. Pheasant and white-tailed deer were listed as the primary wildlife species that occur on and use the property.

Mr. Klein noted that when farmed, the agricultural use of the fields was limited by the presence of small claypan areas. No erosion-related issues were noted.

Kenneth D. Kudrna

Mr. Kudrna was interviewed on June 17, 2007 regarding the uses of land that he owns and operates in and near the Study Area. The properties within the Permit Boundary discussed during interviews include the very small area along the eastern edge of the SE ¼ Section 20.

The cropland in this parcel has been enrolled in CRP since 1999 for the purpose of erosion control. The CRP contract in Section 20 expires in 2010. In 2003 and 2004, portions of the CRP fields were hayed. Aside from the potential for erosion, no other factors limiting agricultural production were noted. All portions of the parcel investigated have been previously tilled, including a grassed waterway that was established for erosion control.

Seeps, springs, or developed surface or groundwater resources are not present within the parcel. Water sources are not necessary to support the existing uses, as grazing is not practiced on the parcel.

Some hunting (with firearms), by individuals seeking permission, is an allowed recreational use on the property; no personal recreation use was noted by Mr. Kudrna. He attributes no economic or other value to recreation land use or wildlife management. There are no existing wildlife or habitat management plans, written or unwritten. He listed white tailed deer, pheasant, and grouse as notable wildlife that occur on and use the property.

Patrick and Katherine Kuylen

Mr. Kuylen was interviewed on July 3, 2007 regarding lands he entirely owns and jointly owns with his wife Katherine Kuylen. The properties within the Permit Boundary discussed during this interview include the NW ¼ and NE ¼ of Sec. 20, Section 27 (entire section), and N ½ NW ¼, NE ¼ and the E ½ SE ¼ of Section 28.

Several natural and developed water sources are present on the property Mr. Kuylen operates. No natural seeps or springs were noted to occur on the portion of the parcels located within the Permit Boundary.

Two reservoirs are located in the southern ½ of Section 27 (T138N, R98W) in the Small Pasture, located approximately one-half mile southeast of his farmstead. Mr. Kuylen considers the easternmost of the two dams to be a marginal source of water. The reservoir to the west is located in a small watershed with unreliable flow. The quality of the water in each is satisfactory, but the very limited quantity of water diminishes their usefulness.

Two wells were noted to exist; however, a third was discovered during the well certification program and is described in [Section 2.5](#). The first, located in the south-central portion of Section 27, provides water of suitable quality for livestock and human consumption. The well currently produces 10 gpm and has a flow restrictor installed. This well feeds an adjacent stockwater tank and a short pipeline that connects to another stockwater tank located approximately 1,000 ft to the north. The second well, located in the farmstead, is also of good quality and provides water to two tanks to the north and west of the farmstead through a connecting pipeline.

The South Branch Heart River provides occasional livestock water with availability dependant on the presence of beaver dams to retain adequate quantities. Mr. Kuylen stated that the water quality is poor and attributed this to the high sediment content of runoff originating from the Little Badlands. Mr. Kuylen also noted that the unnamed tributary flowing south to north through the center of Section 27 provides an ephemeral source of water. However, the water quality of this reach is also very poor and of limited quantity.

On the Kuylen property, the crops commonly planted include spring wheat, oats, barley, alfalfa, and safflower. Small grains are planted for two to three years followed by safflower plantings. Fertilizer is applied to fields in accordance with the findings of soil testing.

Mr. Kuylen noted that production was limited in four fields by soil chemical and physical characteristics. One field has high salinity and high clay content, two fields have high salinity, and one field was highly erodible and has a history of wind erosion. All of these fields are enrolled in CRP.

Seven of Mr. Kuylen's fields within the Study Area are enrolled in CRP. The reasons for enrollment and years of enrollment and contract expiration are provided in conjunction with the production and use information in [Section 2.7.1](#). Except for an area of historic wind erosion previously noted and enrolled in CRP, no other erosional features were noted to occur on the property.

All of Mr. Kuylen's grassland and cropland tracts are grazed at some time during the year. Two large pastures provide most of the grazing use during the growing season. After September 15, all cropland, hayland and areas along the stream west of the farmstead are grazed from approximately September 15 through November 15.

The Kuylen Small Pasture in the center of the southern ½ of Section 27 (approximately 111 acres) is grazed annually from May 1 through 31. The pasture was grazed for the 31 days by 85 cow-calf pairs from 2002 to 2005 and by 70 pairs in 2006. Based on the reported use, an average of approximately 82 AUMs were harvested from the Small Pasture annually from 2002 to 2006. This equates to an average rate of use of 0.74 AU/ac.

The Kuylen Big Pasture is composed of rangeland in the NW ¼ of Section 27 and NE ¼ of Section 28 (approximately 248 acres). This pasture is grazed by the same livestock herd from June 1 to September 15 for a total of 107 days. The grazing herd consisted of 85 cow calf pairs in 2002 through 2005 and 70 pairs in 2006. Based on this reported use, an average of approximately 289 AUMs were harvested from the Big Pasture annually from 2002 to 2006. This equates to an average rate of use of approximately 1.16 AU/ac.

Mr. Kuylen reports that the two primary pastures are in good condition and this condition is stable. The pastures are not cultivated due to limitations imposed by topography and poor suitability of the soil for crop production. In addition to the natural channels in each pasture, pipelines and attendant tanks provide water in both pastures and the two dams (previously noted) also provide water in the Small Pasture.

One active waste disposal area was identified on the Permit Boundary west of the farmstead in the NE ¼ Section 28.

Mr. Kuylen stated that leafy spurge occurs in a spotty fashion along the entire length of South Branch Heart River. Canada thistle, burdock, henbane and wormwood were also listed by Mr. Kuylen as weeds of concern on the property.

Hunting with firearms or archery equipment is an allowed recreational use on the property. Mr. Kuylen attributes no economic or other value to recreation land use or wildlife management. There are no existing wildlife or habitat management plans, written or unwritten. Mr. Kuylen listed pheasant, white tailed deer, turkey, partridge, sharp-tailed grouse and mule deer as wildlife species that he considers to be part of his operation and/or use.

Patrick Kuylen operator – Cornelius Kooren owner

Mr. Kuylen was interviewed on June 18, 2007 regarding lands that he leases from Cornelius Kooren for agricultural uses. The property within the Permit Boundary discussed during the interview is a very small parcel (approximately 0.1 acre) located in the NE ¼ Section 29.

No natural or developed water resources exist on the Kooren property.

Hunting with firearms or archery equipment is an allowed recreational use on the property.

The cropland rotation program implemented on the Kooren property is similar to that used on Mr. Pat Kuylen's property. Small grains (spring wheat) are planted for two to three years followed by safflower plantings. Fallow is not used on any portions of the tract. The cropland is fertilized according to soil tests. No limitations were noted to be present on the fields found on this property.

Approximately 20 acres in the NE ¼ of the NE ¼ Section 29, 0.1 acre of which is within the Permit Boundary, is enrolled in the CRP CoverLock program. Hunting access is also allowed on the balance of the NE ¼ Section 20. The health of the vegetated plantings is maintained by Mr. Kooren. The tract was seeded in 2002 for wildlife habitat (primarily pheasants) and the CRP agreement expires in 2015. Mr. Kuylen listed pheasant, white tailed deer, and sharp tailed grouse as wildlife species that frequently occur on and use the property.

Robert F. and Brenda K. Kuylen

Mr. Robert Kuylen was interviewed on July 18, 2007 regarding the uses of land that he owns jointly with his wife Brenda and operates in the Study Area. The areas within the Permit Boundary discussed during the interview include the SW ¼ of Section 16, Section 17 (all portions within permit boundary), and Section 21 (entire section).

Several reservoirs provide livestock water during the grazing season, all of which are reported to be of good quality, but relatively variable quantity. The reservoir in the southwest corner of Section 21 has marginal quantity. The pond in the NW ¼ of Section 21 and the pond in the SE ¼ of Section 17 have fair quantities. The pond in the SW ¼ of Section 16 has a good quantity of water.

Two groundwater developments within the Permit Boundary were also noted by Mr. Kuylen as providing good quality water for livestock. Two wells, one located in the SW ¼ of Section 16 across the road from the farmstead and the other near the pond in the SW ¼ of Section 21, produce water at a rate of approximately 6.0 gallons per minute (gpm).

The only natural water sources on the property investigated include two seeps and an ephemeral stream reach. Mr. Kuylen noted that two seeps (identified as wet-saline units on [Figure 2.4-2A](#), [Figure 2.4-2B](#) and [Figure 2.4-2C](#)) occur in upland positions in cropland on his property. The water from these seeps is very poor and they do not have a beneficial use. The ephemeral channel in the SW ¼ of Section 16 provides good quality water with seasonal availability dependant on runoff.

The cropland management program employed by Mr. Kuylen consists of two years of spring wheat followed by one year of safflower, oats or barley (used for hay). Fields are fertilized every year based on the findings of soil testing.

Other than the previously noted saline seeps, no other notable limitations of cropland were identified by Mr. Kuylen. No erosional features were noted to occur. A grassed waterway is established in the primary drainage in the southern ½ Section 17 to limit potential for erosion water erosion there.

While no active gravel or scoria pits were noted to occur on the properties investigated, Mr. Kuylen stated that he plans to excavate a new scoria pit in the cropland exclusion area in the extreme southeast corner of Section 21 in late 2007.

The Bob Kuylen North Pasture (87 acres, a small portion of which is within the Permit Boundary) in the NW ¼ Section 17 is grazed by 12 cow calf pairs for 62 days each year in conjunction with adjacent cropland. From May 25 through July 25 the pairs graze the pasture. From July 25 through August 15 the pairs are also allowed to graze in an adjacent hayland located in the N ½ of the NW and NE ¼'s Section 17. After August 15 (i.e., post-harvest) the pairs have access to the cropland in the remainder of Section 17. Assuming half of the use from July 25 to August 15 is from the pasture, approximately 28 AUMs are utilized in the pasture (approximately 87 acres) at a rate of 0.32AUMs/ac. Mr. Kuylen stated that the pasture is in good condition. The previously noted wells and ponds provide adequate livestock water during the grazing season. The primary reason why the pasture is not cultivated is the steepness of the terrain.

The Middle Pasture (217 acres), including all grassland in the NE ¼ of the NE 1/4, SE ¼ of the SE 1/4 (connected by a lane on the Section line) and SW ¼ of Section 16, is also used for grazing. The pasture was grazed by 20 cow calf pairs for 93 days each year from 2002 through 2006 (May 25 through August 25). Based on the duration of use, 61 AUMs are utilized each year at a rate of approximately 0.28 AUMs/ac. Mr. Kuylen stated that the pasture is in good condition. The pasture is not cultivated due to poorer soils and need for pasture. Two ponds and one well previously noted provide water for the livestock in this pasture.

The South Pasture includes all of the grasslands in the western portion of Section 21 and a portion of the NW ¼ of Section 28 owned by Pat Kuylen. From May 25 to August 15 of each year, 30 cow-calf pairs graze the 239 acre pasture. Based on the size and duration of use, approximately 82 AUMs are utilized at a rate of 0.34 AUMs/ac each year. Mr. Kuylen stated that the pasture is in good condition and that the primary reason for not cultivating the tracts is the need for grazing land. Two ponds and one well, previously noted, provide water for the livestock in this pasture.

Leafy spurge was noted to occur on the property at unspecified locations.

Hunting with firearms or archery equipment is an allowed recreational use on the property. Mr. Kuylen attributes no economic or other value to recreation land use or wildlife management. There are no existing wildlife or habitat management plans. He listed pheasant, partridge, grouse, white-tailed deer, antelope, mule deer, fox and coyote as wildlife species that commonly occur on and use the property.

Gary L. and Barbara Meduna

Mr. Gary Meduna was interviewed on July 18, 2007 regarding the use of land that he owns jointly with his wife and operates in and near the South Heart Project area. Mr. Meduna operates agricultural activities on a single tract located in the SW ¼ of Section 9. The entire tract is fenced on the property line with an internal fence separating the cropland from the perennial vegetation adjacent to the Heart River, which is located just outside of the Permit Boundary.

No permanent or seasonal springs or seeps or surface water or groundwater developments were noted to exist on lands operated by Mr. Meduna. The Heart River provides water of good quality for livestock when these parcels are grazed.

The cropping system reported by Mr. Meduna can best be described as continuously cropped spring wheat. However, prior to 2004, some of the fields were planted to a grass hay crop that was harvested annually. Soil amendments are limited to fertilization with application based on regular soil testing and recommendations for the crops planted.

The only cropping limitation reported by Mr. Meduna is the salinity in the field exclusion in the extreme southeast portion of the parcel (adjacent to the mine site in Section 16). The area was previously farmed, but has since been seeded to grass. Erosion was not reported to be a problem on the tract. A gully reported to occur in the field located in the southwest corner of the parcel has been successfully stabilized.

Crop aftermath is grazed in conjunction with the late season forage in the River pasture from September 1 to October 15 of each year. A specific grazing rotation is not implemented and no other pastures are included in this grazing use. When grazing the cropland, livestock have reliable access to water from the Heart River.

Leafy spurge was identified as the only weed of concern on the property. Two major areas are reported to occur in the tract of perennial vegetation on the south side of the Heart River outside of the Permit Boundary. Mr. Meduna controls the weed by spot spraying the entire river bank.

Hunting with firearms is an allowed recreational use on the property. Mr. Meduna attributes no economic or other value to recreation land use or wildlife management. There are no existing wildlife or habitat management plans, written or unwritten. Mr. Meduna reported that the wildlife he manages, harvests, or hunts on the property include white-tailed deer, pheasant, coyote, rabbits, partridge and antelope.

James Perdaems operator - James D. and Rosella J. Perdaems and Jerry F. and Sandra M. Perdaems landowners

Mr. James Perdaems was interviewed on July 24, 2007 regarding the properties that he owns and operates within the Study Area. These areas include property that he jointly owns with his wife, Rosella Perdaems, and other property included in the same management unit but owned by Jerry (uncle to James) and Sandra Perdaems. The property investigated includes the SW ¼ and SE ¼ of Section 14; NW ¼ and NE ¼ of Sec 22, and Section 23 (entire section) were also discussed during the interview. In addition, the SW ¼ and SE ¼ of Section 22, owned by Jerry and Rosella Perdaems, were also discussed during this interview.

South Branch Heart River reportedly provides fair quality livestock water during about 30 percent of the period of grazing use on both the Perdaems' properties. Mr. Perdaems noted that natural flooding of the South Branch Heart River occurs about one in seven years. He noted that the flooding was beneficial to plant growth in pastures of the properties investigated.

Several developed surface water resources are present on the properties investigated. Two dugout reservoirs (SW ¼ of Section 23 and SW ¼ of Section 14) have fair quality and quantity for livestock use. A small pond in the channel along the eastern edge of Section 23 (just outside of the Permit Boundary) was also noted to have water of fair quantity and quantity suitable for livestock which

graze the adjacent cropland. Mr. Perdaems said that dugout pond in the SW ¼ of Section 22 is not put to any use and is of poor quality and quantity.

Four groundwater developments are located on the Jim Perdaems property. One is located in the NW ¼ of Section 23 inside the confined feeding lot. This well is connected to a pipeline running to the south along the road to a hydrant and tank in the SW ¼ of Section 23. From the hydrant, the pipeline proceeds across the road to a fountain in the Jerry Perdaems Pasture. Another well and tank are located in the Calving Lot (pasture) near the center of the SW ¼ of Section 14. Two additional wells are located in the vicinity of the James Perdaems farmstead, one of which connects to a pipeline crossing the road to the north and terminating on the Mary Peters property, which is also operated by Mr. Perdaems. All of the wells are used for livestock watering and were described as being of good quality and quantity.

No springs or seeps were noted to occur on any of the properties operated by Mr. Perdaems.

There is not a set rotation in place for cropland on these properties. The fields owned by Mr. James Perdaems are routinely planted to barley, wheat, or corn (grain and silage). Flax, safflower, or canola is also occasionally planted, although to a lesser extent. On the Jerry Perdaems property, spring wheat is the most common crop with flax, safflower occasionally planted there as well.

Soil fertilizer is applied each year based on the results of soil testing. Agricultural production on cropland was not noted to be limited by specific factors in any areas and no erosional features were noted to occur. No tracts are enrolled in CRP.

The Perdaems grazing use begins each year immediately following calving. The first area to be grazed is the Calving Lot (27 acres, only small portion of which is within the Permit Boundary) in the NE ¼ of the SW ¼ Section 14. Approximately 185 cow-calf pairs are held in this pasture with supplemental feed for as few as five days before being moved onto other pastures on approximately May 20 of each year. This area has not been converted to cropland in order to maintain it for this short-term use.

Beginning May 20th, the Perdaems livestock herd is split into smaller groups that graze grassland tracts until September 1st. The 101 acre Jerry Perdaems Pasture in the SE ¼ of Section 22 is grazed by 33 pairs that utilize approximately 114 AUMs at a rate of 1.1 AUMs/ac. The 182 acre North Pasture located along the channel on the eastern fringe of Section 14 and western fringe of Section 13 is grazed by 47 pairs that utilize approximately 162 AUMs at a rate of 0.89 AUMs/ac. The Middle Pasture, also located on the river terraces, is composed of 78 acres. Approximately 90 AUMs are utilized by 26 pairs in this pasture at a rate of 1.15 AUMs/ac. The South Pasture (32 acres) in the SW quarter-quarter of Section 23 is also grazed during this period by 10 pairs that utilize 35 AUMs at a rate of 1.1 AUMs/ac. The dense trees along the river pastures and combination of wet and high clay soils in the South Pasture are the primary reasons these areas are used for grazing rather than converted to cropland.

All of the remaining grassland tracts on the Perdaems' property are grazed in conjunction with adjacent cropland after September 1st of each year. During the fall months, adequate forage is available to sustain the livestock without supplemental feed. Due to the mixture of cropland and

grassland areas and the variability of utility to be expected from aftermath grazing, it is not possible to determine the amount or rate of use from grasslands in these grazing units.

An agricultural waste pond and containment dike are present in the feedlot adjacent to the James Perdaems farmstead. Another water body within the feedlot also contains agricultural waste runoff from this facility, but is not specifically designed to do so.

Leafy spurge and Canada thistle occur along the entire length of the South Branch Heart River on the Perdaems' properties.

A single gravel pit was noted to occur on the Perdaems property along the Section line in the north-central portion of Section 23.

Hunting with firearms or archery equipment is an allowed recreational use of the Perdaems' properties. No existing wildlife or habitat management plans, written or unwritten, apply to the parcels investigated and no economic value was assigned to recreational land use or to wildlife management. Pheasant, white-tailed deer and turkeys were noted to occur on and use the property investigated.

James Perdaems operator – Peters, Mary Louise et. al. landowners

Mr. James Perdaems was interviewed regarding the property in the Study Area that he operates, but is owned by Mary Peters. The properties owned by Mary Peters within the Permit Boundary and discussed during the interview include Section 15 (entire section excluding 5.7 acres in the extreme southeast corner), and NW ¼, NE ¼, and SE ¼ of Section 16.

Several water sources are available for livestock use on the parcels investigated. A pipeline originating in the James Perdaems farmstead ends at a hydrant and temporary tank in the southeast corner of Section 15. Four reservoirs contain water of fair quality and quantity, including one in the SW ¼ of Section 15, one in the SE ¼ Section 16, and two on the northern boundary of Section 16.

No specific crop rotation is implemented. Spring wheat is planted in most years with flax, safflower and canola planted only occasionally.

Mr. Perdaems noted that poorer shallow soils in the NW ¼ Section 16 and a clay pan soils elsewhere in Section 16 create notable limitations to the use of that property for crop production.

Leafy spurge was the only noxious weed noted to occur on the Mary Peters property. Specific locations of occurrence were not identified.

Livestock graze all of the Mary Peters property including croplands and adjacent native and tame pastureland tracts in the fall. The non-cultivated tracts are not separately fenced and, therefore, are not separately managed. Due to the mixture of cropland and non-cultivated areas on the Peters property and the variability of utility to be expected from aftermath grazing, it is not possible to determine the amount or rate of production from grasslands that is used by livestock each year.

A small “scoria” pit located in NW ¼ NE ¼ Section 16 is still actively used. An additional abandoned mine feature in the NE ¼ NW ¼ Section 16 is the only site of historic coal mining in the Study Area.

Hunting is not allowed on the properties investigated that are owned by Mary Peters. White-tailed deer and antelope were the only species specifically noted to use the Mary Peters property.

James and Lisa Wagner

Mr. James Wagner was interviewed on July 12, 2007 regarding land that he owns jointly with his wife and operates in and near the Study Area. Mr. Wagner owns and operates agricultural activities on a single tract located in the SE ¼ of Section 9. The entire tract is fenced on the property line with an internal fence adjacent to, and crossing, the Heart River, which is located just outside of the Permit Boundary.

Mr. Wagner stated that the Heart River is the only water source supporting grazing on this property. He did not identify any permanent/seasonal springs or seeps, surface water developments, or groundwater developments on his property.

Mr. Wagner implements a continuous cropping practice with all fields planted every year. The crops are planted with rotation between wheat and forage crops including millet, sudan grass, sorghum, oats, and barley. Fertilizer is applied annually based on soil testing. Fertilizer applied commonly consists of anhydrous ammonia and a phosphorous/nitrogen crop starter application.

A mixture of sandy soils and heavy clays on the property were identified by Mr. Wagner as the most notable limitation to cropland on the property. No active erosional features were noted. Although not specifically noted by Mr. Wagner during the interview, observations made during the soil survey suggest that salt content and frequent saturation are the factors limiting cultivation and cropping in the southwestern portion of the parcel.

The rangeland and wooded tracts on the property are native stands that were not previously tilled. The largest of these non-tilled tracts occur in association with the incised drainages, where steep topography limits equipment access. Leafy spurge is known to occur in the native areas along the river bank in the extreme northern portions of the parcel.

All grassland tracts are grazed by 25 cow-calf pairs for up to seven months out of the year, beginning after crops have been harvested in the fall of the year. Due to the mixture of grassland and cropland and the seasonality of use, an accurate estimate of the AUMs utilized per acre is not available.

Hunting with firearms and archery equipment is an allowed recreational use on the property. Mr. Wagner attributes no economic or other value to recreation land use or wildlife management and there are no existing wildlife or habitat management plans for this property. He listed white-tailed deer, pheasant, and antelope as wildlife species that occur on and use the property.

Glen Wagner operator – Robert Pavel owner

Mr. Wagner was interviewed on July 3, 2007 regarding lands in the Study Area that he operates, and are owned by Mr. Robert Pavel. The property within the Permit Boundary discussed during the interview is located in the SW ¼ of Section 10 and the NW ¼ of Section 14.

Mr. Wagner noted that a well is located in the old farmstead area in the extreme northwest corner of Section 14. The well is not currently being used but is thought to be of good quality (quantity unknown). No other natural or developed water resources occur on these properties, thereby limiting the potential of the tracts for grazing use.

Mr. Wagner's farming practices primarily consist of continuous cropping with spring wheat, but safflower is occasionally planted. From 2002 to 2004, Mr. Philip Wagner (Mr. Glen Wagner's father) was the lessee of the property. During this period, fertilizer was not applied. Since that time, soil fertilizer application is based on the results of soil testing.

No erosion or other limitations were noted to occur on the portions of the parcels within the Permit Boundary.

Leafy spurge was the only noxious weed known to occur on the property. Stands of this species are present in the old farmstead area in the NW ¼ of the NW ¼ of Section 14.

Hunting with firearms or archery equipment is an allowed recreational use on the property. Mr. Wagner has no existing wildlife or habitat management plans or agreements, and he attributes no economic value to recreation land use or to wildlife management. He listed pheasant and white tailed deer as wildlife species that he considers as part of his operation and use of the property.