KANSAS GEOLOGICAL SURVEY

1930 Constant Ave., Campus West
The University of Kansas
Lawrence, Kansas 66047-3726
phone 785-864-3965
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June 30, 2005

Mr. Eric E. Coustry, P.E.
Mr. Doran H. Stark
Mikon Corporation Consulting Engineers
4414 B South 40th Street
St. Joseph, MO 64503

Re: Quail Farm Project (PAD KS-0011 & KS-0148), located in portions of Sections 22 and 23, T. 30 S., R. 24. E., Crawford Co., Kansas

Dear Mr. Coustry and Mr. Stark:

I have reviewed the information that you sent the Kansas Geological Survey concerning the proposed reclamation site titled the "Quail Farm Project", located to the west of Pittsburg in Crawford County, Kansas. The proposed reclamation area (KS-0011 & KS-0148) is located mainly in the west half and a small portion of the NE quarter of Section 23, and part of the northeast quarter of Section 22, T. 30 S., R. 24 E., Crawford Co., Kansas. Location of the project is on past strip-mine land disturbed by mining of the Mineral coal and possibly some Fleming or Croweburg coal in areas where these coals were present and had economic thickness and quality. These coal beds are part of the Cabaniss Formation of the Cherokee Group of rocks in southeastern Kansas.

The proposed reclamation efforts would correct problems created by this past strip-mining of the Mineral coal and possibly the Fleming and Croweburg coals. There are several coal beds underlying the Mineral coal including the Weir-Pittsburg coal bed that has been extensively mined in Crawford County by both surface and subsurface mining methods. Portions of the project area within Section 22, and small areas within Section 23 were mined by underground methods for the Weir-Pittsburg coal bed below the proposed reclamation areas. Depth to the Weir-Pittsburg coal is approximately 80 feet, too deep for modern surface mining for the thickness and quality of the Weir-Pittsburg coal, and underground coal mining has been out of favor for economic reasons for the past 40 to 50 years in Kansas. Therefore, the potential for additional strip-mining of coal at this proposed reclamation site is not a factor of concern for the reclamation of this site. Some potential does exist for future strip mining (probably for the Mineral, and additionally the Fleming or Croweburg coals in a multiple seam operation) in areas close to/ but not within the reclamation area.

Basically, future mining should not disturb the area outlined for your reclamation effort plans and you should continue with your reclamation plans. Best wishes on completion of the reclamation project.

Sincerely,

Lawrence L Brady

Lawrence L. Brady
Senior Scientist

MIKON CORPORATION Consulting Engineers

June 15, 2005

Greg Ohlmacher

Mr. Lee Gerhard
Kansas Geological Survey
Kansas University
1930 Constant Ave. – Campus West
Lawrence, Kansas 66047-3726

RE: Quail Farm Reclamation Project
Crawford County, Kansas

Dear Mr. Gerhard:

MIKON Corporation is currently performing design services for the reclamation of the Quail Farm Project (PAD KS-0011 & KS-0148) for the Kansas Department of Health and Environment (KDHE), Surface Mining Section (SMS). The project consists of multiple areas which are located in Sections 22 and 23, Township 30 South, Range 24 East, Crawford County, Kansas. Please refer to the attached map for the site location.

Reclamation of the site is being considered by the Surface Mining Section to minimize the hazards typically associated with abandoned mining operations. Attached is a project overview that briefly discusses the reclamation. We are requesting a letter from the Kansas Geological Survey stating whether or not it is considered likely that the area of this project will be mined in the future.

We would appreciate a reply at your earliest convenience. If you have any questions, feel free to contact us.

Sincerely,

MIKON Corporation

Eric E. Coustry, P.E.

Doran H. Stark

EEC/DHS:jr
#104012-1
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Attachments
Project Location Map
Project Overview

c: Mr. Dave Chiappetti, KDHE SMS (w/ attachments)

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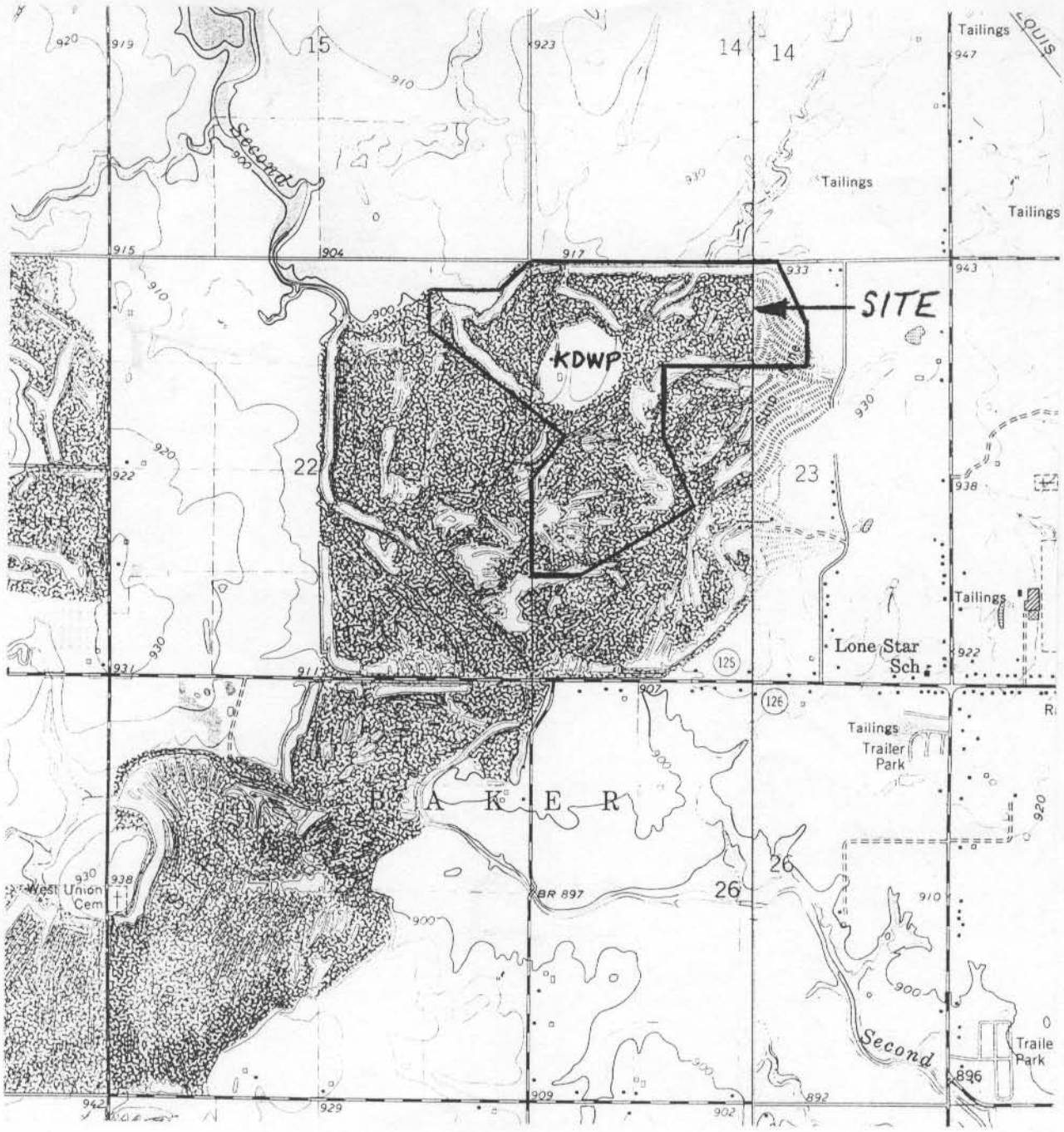

PROJECT LOCATION MAP

MIKON CORPORATION
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QUAIL FARM II RECLAMATION

SECTIONS 22 & 23, TOWNSHIP 30 SOUTH, RANGE 24 EAST
CRAWFORD COUNTY, KANSAS

Quail Farm II Reclamation Project
Crawford County, Kansas
Project Overview

Quail Farm II Reclamation is an Abandoned Mine Land Project located in Sections 22 and 23, Township 30 South, Range 24 East, Crawford County, Kansas as shown on an accompanying location map. The land is owned by the State of Kansas and is being utilized and maintained by the Kansas Department of Wildlife and Parks (KDWP) as a public use area. The traveling public is exposed to safety hazards along 560th Avenue to the north and along a network of internal roads within the site due to the relative proximity of ponds and highwalls.

The goal of the reclamation is to address the safety hazards while minimizing impacts to existing vegetation and wildlife and aquatic habitats. In the process, improvements such as alignment, grade, sight distance, surface course, etc. will be made to internal roadways; favorable fishing ponds will be made deeper by raising present overflows whereas some shallow, marginal ponds will be eliminated; better access will be provided for boating and fishing in large, newly interconnected ponds; hydraulic structures will be improved; wetlands will be created; new wildlife habitat diversity will be provided; etc. The reclamation project is being administered by the Kansas Department of Health and Environment (KDHE), Surface Mining Section (SMS). It is being funded by the U.S. Department of Interior's Office of Surface Mining Reclamation and Enforcement through grants to KDHE, and is being conducted in cooperation with KDWP, Ducks Unlimited and Quail Unlimited.

Pond 1 is a long, narrow, shallow pit pond which parallels 560th Avenue, with a small return leg at the east end. This pond will be completely filled, except the east return leg. Pond 2, a stock pond, will be raised 1.0' and provided with a new outlet control structure at the southeast end. At that location, a manually-operated supply line will divert water when desired to a new managed wetland to be located in a presently unused field and defunct quail farm facility. Pond 3 will remain as is, except at its northeast end where fill will be placed to increase the safety zone between the park's main entrance and the pit pond. A new boat ramp will be constructed to replace the existing one which will need to be demolished in the process. At the southwest end, the existing outlet channel of Pond 3 will be protected with riprap to curtail erosion into Pond 4.

Pond 4, presently unusable and inaccessible, will be deepened by constructing a gabion weir at its outlet end. A new access road will be constructed so that this pond will then be accessible to the public. It will be graded so a new boat ramp can be installed by KDWP at a later date. Existing Ponds 5, 6 and 7, as well as the east return leg of Pond 1, will all be raised and interconnected to improve boating, fishing and habitat. A buffer strip of undisturbed land will be left along the majority of the existing shorelines for interest and habitat. Another access point will be provided at Pond 7 where none now exists. It, too, will be graded so a new boat ramp can be installed by KDWP at a later date. Pond 6 will be provided with new outlet works: the present dam is ineffective and is in danger of imminent failure as the pipe is inoperative and water now seeps through the dam at an unacceptable rate. Failure of the existing dam would drain Pond 6 and, via an interconecting pipe, Pond 5 also.

The existing main access road through the site often borders dangerous drop-offs and water bodies. The road will be realigned to eliminate a hairpin turn and a dangerous crossing of the creek which runs through the site. The existing reinforced concrete box culvert will be demolished and replaced nearby with a longer box culvert oriented at a much improved angle with respect to the roadway. A small portion of the creek will also be realigned to permit constructing the improved access road.

Well within the site, a loop road provides multiple access points to several, usually small, fishing ponds. The public is denied access to this area in the off season. Over time, vegetation has encroached upon the roadway. Safety issues also exist due to the proximity of drop-offs and water bodies. The roadway will be reclaimed by clearing, widening and resurfacing, and drop-offs and water bodies will be filled only to the extent necessary to provide a reasonable safety zone paralleling the roadway.

Most of the reclamation requires fill for regrading. Existing spoil ridges will provide the necessary fill materials. Regraded areas will be seeded with a mixture of warm and cool season grasses, together with a mixture of forbs. Northeast of Pond 2, a depression area will be incorporated into the grading with the expectation it will naturally develop into a wetland. Northeast of Pond 5, the remaining mound of regraded, revegetated spoil is targeted by KDWP and Quail Unlimited to be developed into quail habitat.

Before and during grading operations, temporary devices will be used to control erosion and minimize sediment transport. After final site grading is complete, all disturbed areas will be limed, fertilized, seeded and mulched. Erosion control devices will remain in place until acceptable vegetative cover has been achieved. Existing ditches which are to remain and newly constructed ditches will be protected with either vegetative cover alone, temporary or permanent erosion control mat and vegetation, or with riprap, depending upon anticipated design flows and velocities.

All areas planned to be disturbed by this project presently drain to Second Cow Creek: the vast majority of runoff (90%) exits the site and enters the creek directly on KDWP property at the northwest end, while the remaining amount (10%) enters the creek via an intervening large pond (LR55) to the southwest. In any event, the improvements will not alter the present general routing of runoff, i.e., pre- and post-construction runoff are essentially the same. However, the post-construction, off-site transport of sediment to Second Cow Creek is expected to be noticeably reduced as a result of slope reduction and improved vegetative cover. In addition, significant safety issues will have been addressed.

Any effects to fish and wildlife are expected to be of short duration. Most cleared materials will be piled in specified locations around the site and below water level in new ponds to mitigate loss of wildlife and aquatic habitat. A rock cofferdam utilized to initiate stable fill in Pond 3 which is to remain, as well as new shallow water bodies including a 5.1-acre KDWP-managed wetland and a 2.2-acre naturally developing wetland, will provide additional diverse aquatic habitat. Pond surface area lost by the reclamation will be replaced by new ponds totaling nearly 5 acres more than presently exists; and new shoreline provided will essentially equal that which is lost. The buffer zone of undisturbed land which will be left along the shorelines of Ponds 5 and 6, as well as along the remaining portion of Pond 1, will also enhance habitat. In addition, and at the request of KDWP, the grading contractor will be encouraged to locally push narrow fingers of land part way into Pond 7 for additional diversity. In a follow-up contract, tree seedlings will be planted along shorelines where applicable to augment the buffer zone to a width of 100' for wildlife in general, and in particular for the gray bat, an endangered species.