# 2 Property Description and Location (Item 6)

Section 2 is extracted in-part from Powertech's Technical Report titled "Updated Technical Report on the Centennial Uranium Project, Weld County, Colorado", dated February 25, 2010. Changes to standardizations, sub-titles, and organization have been made to suit the format of this Technical Report. SRK comments and opinions, where present, contain "SRK" in the pertinent sentences and paragraphs.

# 2.1 **Property Location**

The Centennial Project is located in west central Weld County, in north central Colorado; about 13mi south of the Colorado-Wyoming state line Figure 2-1. Access is provided from major U.S. Highways by numerous state and county roads that follow land subdivision lines. Interstate Highway 25 between Denver, Colorado and Cheyenne, Wyoming is approximately 4 miles west of the project. The project lies within portions of Townships 8, 9 and 10 North, Range 67 West, approximately 14mi northeast of Fort Collins and 16mi northwest of Greeley. The southern portion of the project lies between the small towns of Wellington and Nunn.

## 2.2 Mineral Titles

Originally, the Centennial Project consisted of private mineral rights totaling 6,880 acres (Figure 2-2). This total included 5,760 acres (nine sections) of mineral rights purchased by Powertech from Anadarko Land Corporation (Anadarko). The Anadarko mineral rights were originally part of the Union Pacific Railroad land grant, which was comprised of alternate sections (checkerboard pattern) for 20mi on both sides of the Railroad right-of-way. Anadarko retained all mineral rights pertaining to oil and gas and all leasable minerals.

Powertech's land position has steadily increased. In July 2009, Powertech entered into two option agreements for the purchase of an aggregate of 3,585 acres of land, together with the associated water, mineral and lease interests. Powertech entered into an option agreement with M.J. Diehl & Sons, Inc. and Howard Diehl and Donna Diehl (collectively, Diehl) to purchase approximately 2,160 acres of land. Pursuant to the option agreement, the Company has 24 months to exercise the option. During the term of the option, the Company is permitted to access the property for the purposes of pumping, testing, monitoring and sampling water. An option agreement was also enter into with Thomas Varra and Dianna Varra (collectively, Varra) to purchase approximately 1,425 acres of land. The option agreement is for a term of 12 months but can be extended for two 12-month periods. Powertech's total gross mineral rights in the area have increased to 9,615 acres, while its surface use acreage has increased to 7,262 acres. This additional surface acreage provides Powertech access to its privately-owned minerals, as well as enabling it to conduct drilling, pump testing, mine planning, and support operational facility design.

## 2.3 Location of Mineralization

The uranium deposits of the Centennial Project are classic roll front type deposits occurring in subsurface sandstones deposited in shallow marine regressive and transgressive sequences within the Fox Hills Sandstone of late-Cretaceous age. The uranium roll fronts in the Centennial area are associated with oxidation/reduction interfaces and are known to cover a linear distance of at least 30 miles and extend throughout an area of more than 50 square miles. Historical data describe miles of mineralized trends developed along these oxidation/reduction interfaces, with

discontinuous uranium deposits concentrated along the length of these systems. Maps prepared by RME from 1978 until 1984 (and available to the author) indicate the regional oxidation occurs in three separate sands within the Fox Hills Sandstone and that economic uranium occurs in seven distinct deposits within the project area (Figure 2-3). Historical drillhole exploration suggests most of the favorable environments for economic accumulations of uranium have been identified, but this limited drilling cannot exclude the possibility for discovery of future economic uranium deposits in the area.

There has been no attempt made to extract uranium from the project area. Although RME had planned in detail to surface mine a large shallow uranium deposit within the southern portion of the project, market conditions in 1982 thwarted its production plans. RME discussed ISR extraction of the deeper uranium deposits in the northern portion of the Project but no development activities were undertaken before closing the project in 1984.

#### 2.4 Agreements, Encumbrances, and Royalties

The Purchase and Sale Agreement between Powertech Uranium Corp. and Anadarko, dated September 27, 2006, for the acquisition of 5760 acres of mineral rights contain the "core" resources for the Centennial Project. In addition to this agreement, Powertech has entered into option agreements to purchase surface and mineral rights, as well as private mining leases in the area. To the best of Powertech's knowledge, there are no liens or encumbrances on the properties.

The current leases on the properties have sliding scale royalties that range from a five percent to nine percent gross royalty based on the sale price of "yellow cake" by Powertech. The royalty burden for the properties include royalties for surface and minerals. The average royalty for "yellow cake" for the Centennial Project would be 7%.

#### 2.5 Environmental Liabilities and Permitting

The Centennial Project is in the early stages of environmental permitting, and although there is some uncertainty to the period required to permit an ISR facility in the State of Colorado, based upon present knowledge SRK is of the opinion that the Centennial Project could be fully permitted by late 2012, with production commencing in 2013.

#### 2.5.1 Residual Environmental Liabilities

The Centennial Project was the previous site of intensive drilling by RME. All disturbances from previous exploration activities were reclaimed by RME. SRK's site visit examination of the property indicated there are no visible historical drill sites or other surface disturbance that would require reclamation of other mitigation efforts.

Present operational liabilities are limited to restoration of ground disturbed by drilling operations at the project site. Powertech conducts this work on an ongoing basis.

#### 2.5.2 Required Permits and Status

Colorado is historically a mining state with a long history of underground and open pit mining. However, in situ uranium development has not been undertaken in the state to date. A number of permits and licenses must be acquired from federal, state and county agencies to meet established permitting requirements. Table 2.1 lists the required permits, and their current status for the Centennial Project. The U.S. Nuclear Regulatory Commission (NRC) oversees all radioactive source material licenses under the Atomic Energy Act. In the State of Colorado, the Colorado Department of Public Health and Environment (CDPHE) is authorized by the NRC to administer programs related to Source Material Licenses. This program covers all activities such as processing, concentrating and shipping and sale of uranium to a utility buyer. The CDPHE is also responsible for issuing air quality, water discharge and storm water permits.

The Colorado Department of Natural Resources and its sub agency, the Division of Reclamation, Mining and Safety (DRMS) are responsible for permitting and oversight of all large-scale mining operations. The regulatory framework and guidelines for the uranium ISR mine permitting process has been developed by the State of Colorado; however, the final rule-making process is still in progress at the time of this report. Powertech will likely be the first applicant under the final rules of Colorado House Bill 2008-1161.

Underground Injection Control (UIC) in the State of Colorado is regulated by Region 8, of the U.S. Environmental Protection Agency (EPA). Powertech will complete the EPA UIC Permitting process for both the ISR well field and the deep disposal wells.

Weld County is responsible for the special land use permit, as well as sewage, construction, zoning and public works permits

Powertech conducted an environmental background data collection program for the Centennial Project from July 2007 to February 2009. A third-party directed the sampling program and investigated pre-mining environmental conditions related to water, soils, air, vegetation and wildlife of the site and surrounding areas. Data from this program will be incorporated into the required mining permit applications. Further data collection will be limited completion of a pump test scheduled for the 2<sup>nd</sup> Quarter 2010 pending receipt of applicable permits.

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Permit/License	Agency	Submitted/TBS*	Processing Time (as specified)	Comments
Mine Reclamation Permit	Colorado Division of Reclamation, Mining & Safety	2010	270 days	Awaiting final rules under HB 2000-1161
UIC Class III Permit	Environmental Protection Agency	2010	Not specified, no experience at Region 8	
Source and By-Product Materials License	Colorado Department of Health and Environment	2010	435 days	Time includes responses by applicant and Weld County
UIC Class I Permit	EPA	2010	Not specified	
Special Land Use Permit	Weld County Commission	2010	9 – 18 months, depends on NEPA process (EA v. EIS)	Must be performed during CDPHE review
Water Rights Permit	Colorado State Engineer's Office	2010	8 – 12 months	Time estimate based on discussions with water brokers and legal counsel
Groundwater Discharge Plan	CDPHE – Water Quality Control	2010	180 days	
Air Quality Control Permit	CDPHE – Air Quality Control	2010	180 days	
Other Permits: Stormwater Permit, NPDES Permit, Spill Contingency Plan, Septic Tank Permit, Drinking Water Permit, Hazardous Waste Permit	All issued by CDPHE	2010	All processed in 6 months or less	

#### Table 2.1: Primary Permits – Status

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