CHAPTER 4
LAND USE AND AIR QUALITY

4.10 Land Use

4.1.1 Environmental Description

4.1.1.1 Premining Land Use

The northern 10 acres within the permit area were purchased by COVOL Engineered Fuels, LC from Terra Systems Inc. in 2003. The southern 20 acres within the permit area were sold to COVOL Engineered Fuels, LC in 2005 by Price City. The entire site was purchased in 2013 by Bowie Refined Coal and/or its subsidiaries and/or affiliates (see Chapter 1). Due to its high alkaline and saline content, the land is poorly suited for agriculture. Construction of the facility was initiated in July 2005, and limited operations began in January 2006.

Land Use Map. Zoned land use in the vicinity of the site is indicated on Figure 4-1.

Land Capability. The land capability of the permit and adjacent areas is suited to its current industrial zoning status. The soils are composed primarily of alkaline, saline, weathered shale that do not readily support agricultural activities. The Natural Resources Conservation Service indicates that these soils have a poor revegetation potential due to the lack of precipitation and infertile soil properties (Jensen and Borchert, 1988). The native vegetation consists of a salt desert community that is poorly suited for wildlife and livestock use.

Land Use Description. According to the development code of Carbon County, Utah (Carbon County, 2003), the surface lands are zoned I-2 (General Industrial) as follows:
"The I-2 General Industrial zone has been established for the purpose of providing a place where firms engaged in mining and related activities, and/or heavy manufacturing, processing and fabrication of goods and materials, can locate with minimum conflict or deleterious effect on surrounding properties and the natural environment, and with a high degree of protection from encroachment of residential and commercial uses. It is also the intent of this zone to promote the economic well being of the people within the County and to broaden the tax base."

The land has also been zoned by Wellington City as M-1 (light industrial). Permitted uses under this zoning classification include a variety of industrial and manufacturing operations (see Appendix 1-4).

BRC Wellington ("BRCW") operates a dry coal cleaning facility at the site, separating coal from waste rock using a dry (air-enhanced) process. This work is done on a toll basis, with BRCW not having ownership of the coal. All material is shipped off site in accordance with client contracts once processing is completed. Activities at the site are in accordance with the I-2 and M-1 zoning as described above.

Cultural and Historic Resources Information. A Class I cultural resource inventory of the area surrounding the Wellington facility was conducted from the records of the Utah State Historical Preservation Office ("SHPO"). The results of this survey are provided in Appendix 4-1. The qualifications of the individual who conducted the records search are provided in the resume contained in Appendix 4-3. As indicated, 10 inventories have extended to areas within 1 mile of the BRCW facility, with only one cultural resource site identified within this 1-mile radius. This site was an insignificant lithic scatter located more than 500 feet from the BRCW site. Its location with respect to the BRCW facility is not shown in Appendix 4-1 due to SHPO data restrictions. No cultural resource sites have been identified within the BRCW facility boundaries.

4.1.1.2 Previous Mining Activity

No previous mining activity occurred in the permit area.
4.1.2 Reclamation Plan

4.1.2.1 Postmining Land Use Plan

As indicated in Section 2.2.2.2 of this application, the soil at the BRCW facility is poorly suited for agricultural use. Furthermore, native vegetation in the area is poorly suited for rangeland use of the site (see Section 3.2.1). Hence, in accordance with R645-301-413.120, rather than restoring the land to its pre-disturbance use it will be restored to a higher or better post-operations industrial land use consistent with the current zoning of the site and adjacent areas. The extent of site restoration following operations is discussed more fully in Section 5.40 of this permit application.

The land occupied by the Wellington Dry Coal Cleaning Facility will adequately support future industrial land uses after operations are complete. The Applicant intends that the post-operational land uses will be consistent with the industrial land use plans approved by Carbon County and Wellington City. Final reclamation activities will be completed in a manner consistent with that intended post-operation industrial land use and in accordance with Carbon County and Wellington City zoning ordinances. Given its excellent access via Ridge Road, its gentle terrain, and the existence of utilities, the land will have value as an industrial site following closure of the BRCW facility.

4.1.2.2 Land Owner or Surface Manager Comments

BRCW owns and operates the facility. Thus, surface land owner comments are not required. All operations will be conducted in accordance with applicable local, State, and Federal regulations.
4.1.2.3 Suitability and Capability

Final fills will not contain excess spoils.

4.1.3 Performance Standards

4.1.3.1 Postmining Land Use

The proposed post-operations land uses will be industrial. The land is capable of supporting such a land use.

4.1.3.2 Determining Premining Uses of Land

The post-operations land use is the same as that which existed before the operation began.

4.1.3.3 Criteria for Alternative Postmining Land Uses

No alternative post-operations land uses are anticipated.

4.1.4 Alternative Land Use

No alternative post-operations land uses are anticipated.

4.20 Air Quality

This section includes descriptions of plans to comply with the Clean Air Act and applicable Utah or federal statutes and regulations pertaining to air quality standards.
4.2.1 Air Quality Standards

BRCW’s operations are being conducted in compliance with the requirements of the Clean Air Act and the Utah Air Quality Regulations.

4.2.2 Compliance Efforts

Air emissions from the facility comply with applicable local, state, and federal standards, and are permitted with the Utah Division of Air Quality (DAQ) under Approval Order (AO) DAQE#AN2952001-05 issued on June 30, 2005. Under the permit, the facility qualifies as a minor source of particulate emissions. Controls at the facility include dust suppression of the roadways with water, a telescoping drop chute on the primary stacking conveyor, enclosed screen and crusher, and fixed discharge chutes on the stacking conveyors and at the truck loadout stations. A copy of the AO is included in Appendix 4-2. A copy of a letter from the prior owner to DAQ concerning the onset of production is also included in Appendix 4-2. This permit allows for 7.12 tons of $PM_{10}$ emissions per year, provided that BRCW complies with the stipulations of the permit. These stipulations are summarized in the following paragraphs.

**Fabric Filter Baghouses.** All of the exhaust from the air cleaning tables is channeled through baghouses before being discharged to the atmosphere. The fabric filters used in each baghouse will comply with the specifications for porosity and differential pressure as specified in the AO.

**Opacity.** Visible emissions from the components of the facility are restricted to the following opacity limits:

- Crushers: 15%
- Screens: 10%
BRC Wellington LC
Dry-Coal Cleaning Facility

- Conveyor Transfer Points: 10%
- Baghouse Exhaust Stacks: 10%
- Haul Road Traffic/Vehicles: 20%
- All other points: 20%

Process Limitations. The facility is limited to processing no greater than 1,500,000 tons of coal per rolling 12-month period.

Fugitive Dust Controls. Standard procedures, including water and/or chemical treatment of roads and other areas with vehicle traffic, will be followed in accordance with the AO. Storage piles will also be sprayed with water as necessary. In-plant haul roads will be limited to a total length of 0.69 miles, with a speed limit of 10 miles per hour. They will be paved and swept as needed, as per the AO.

Other Controls. Conveyors and stackers are covered or enclosed. Discharge chutes have been installed on radial stacker conveyor drops and truck loadouts at the alternate product loading hopper and the product storage silo.

4.2.3 Monitoring Program

DOGM does not require an air monitoring program for the Wellington Dry-Coal Cleaning Facility at this time. A monitoring program has been established with the DAQ under AO# AN2952001-05. The program includes the installation of manometers to measure the differential pressures across the filters in the baghouses, a protocol for measuring opacity from fugitive dust road emissions, and specifies the types of records to be maintained for control measures that are applied. Additional details for the DAQ air monitoring program are included in the AO document, which is included in Appendix 4-2.
REFERENCES


APPENDIX 4-1

Class I Cultural Resource Inventory
APPENDIX 4-2

Utah Division of Air Quality
Approval Order
APPENDIX 4-3

Resume of Individual Conducting the Cultural Resource Evaluation
FIGURE 4-1. LAND USE MAP
APPENDIX 4-1

Class I Cultural Resource Inventory
September 5, 2008

Rich White
EarthFax Engineering, Inc.
7324 South Union Park Ave.
Suite 100
Midvale, UT 84047

Subject: Class I File Cultural Resources File Search for the Wellington Dry-Coal Cleaning Facility on behalf of COVOL Engineered Fuels, LC

Address: Section 14, Township 15 South, Range 10 East

Dear Mr. White:

Canyon Environmental has conducted a Class I Literature Search for the above mentioned site at the Utah State Historic Preservation Office (SHPO) on behalf of COVOL Engineered Fuels, LC. The Class I was conducted in order to comply with requirements set forth by the Utah Division of Oil, Gas, and Mining (DOGM).

The proposed Dry-Coal Cleaning Facility will comprise approximately 30 acres and will be developed on lands that have been previously disturbed (Figure 1). DOGM has requested that a File Search be conducted to determine the extent and disposition of any cultural resources that have been previously identified in the surrounding area.

The file search was conducted on September 3, 2008 at the Utah State Historic Preservation Office in Salt Lake City, Utah. The file search identified 10 previously conducted inventories and one cultural resource site within a one-mile radius of the proposed project area. According to the information obtained from SHPO, the proposed project area has not been previously surveyed for cultural resources. The file search results are described in the Table 1.1.

Table 1.1 Previous Cultural Resource Inventories Conducted in the Vicinity of the Project Area and Applicable Findings

<table>
<thead>
<tr>
<th>Project No.</th>
<th>Company Name</th>
<th>Project Name</th>
<th>Findings¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>U-77-UA-0318b,f,s</td>
<td>U of U</td>
<td>Green River Reservoirs / Plants/ pipeline / Transmission Lines</td>
<td>42CB130, 42EM969-974 &amp; 976-990</td>
</tr>
<tr>
<td>U-78-UA-0245b,s</td>
<td>U of U</td>
<td>Denver and Rio Grande Spur Line</td>
<td>42EM1072-1079, 42CB336-340, 733</td>
</tr>
<tr>
<td>U-80-UB-0722p</td>
<td>UTARC</td>
<td>Coal Plant in Castle Valley</td>
<td>None</td>
</tr>
</tbody>
</table>

¹ Numbers in parentheses refer to field data numbers.
Table 1.1 Previous Cultural Resource Inventories Conducted in the Vicinity of the Project Area and Applicable Findings

<table>
<thead>
<tr>
<th>Project No.</th>
<th>Company Name</th>
<th>Project Name</th>
<th>Findings¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>U-81-FS-0945f</td>
<td>USFS</td>
<td>Ira Holley Phosphate Development, Little Diamond Creek</td>
<td>None</td>
</tr>
<tr>
<td>U-84-SJ-448b,s</td>
<td>Sagebrush</td>
<td>Cultural Resource Survey of Several GEO Seismic Services; Geophysical Transects in Southern Carbon County</td>
<td>42CB491</td>
</tr>
<tr>
<td>U-87-BL-0332b</td>
<td>BLM</td>
<td>Wellington land Sale</td>
<td>None</td>
</tr>
<tr>
<td>U-89-AF-301b,s</td>
<td>AERC</td>
<td>CRE of Proposed Ridge Road Development in Carbon County</td>
<td>42CB577</td>
</tr>
<tr>
<td>U-96-BS-0186b,s</td>
<td>Baseline</td>
<td>CRI of Emery Telephone Fiber Optic Line in Emery and Carbon Counties</td>
<td>42EM2440-2441</td>
</tr>
<tr>
<td>U-04-BE-1098p</td>
<td>BOR</td>
<td>North Creek Lateral</td>
<td>None</td>
</tr>
<tr>
<td>U-05-PD-0052b,p,s</td>
<td>PIII Assoc.</td>
<td>Carbon Canal</td>
<td>42CB 571, 1040, 1270, 1396, 2321-2322, 3376-3377</td>
</tr>
</tbody>
</table>

Ten cultural resource inventories have been conducted within a one-mile radius of the proposed project area. The proposed project area was not included in any of the previously conducted inventories.

One previously identified cultural resource site (42CB130) was identified within a one-mile radius of the proposed project area. The site was identified as an historic site with no determination of eligibility. The previously identified site is located more than 500 feet in distance from the proposed project area.

Based upon the findings of the Class I inventory, no cultural resource sites have been identified within the proposed project area boundaries. Nor have any sites been identified in the immediate vicinity about the proposed project area.

Please review the above cultural resource file search results and if you have any questions, contact me at 801-602-6883.

Sincerely,

Chris Jensen
Archaeologist
Canyon Environmental

INCORPORATED
August 31, 2009
Div. of Oil, Gas & Mining
APPENDIX 4-2

Utah Division of Air Quality Approval Order
June 30, 2005

Keith Thompson  
COVOL Engineered Fuels LLC  
10653 South Riverfront Parkway, Suite 300  
Sandy, Utah 84095

Dear Mr. Thompson:

Re: Approval Order: Modification of Approval Order DAQE# AN2952001-03, by Adding Equipment and Increasing Blended Coal Production, Carbon County – CDS B ATT; NSPS; TITLE V Minor Project Code: N2952-003

The attached document is the Approval Order (AO) for the above-referenced project.

Future correspondence on this Approval Order should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any technical questions you may have on this project to Mr. Tim De Julis. He may be reached at (801) 536-4012.

Sincerely,

Richard W. Sprott, Executive Secretary  
Utah Air Quality Board

RWS:TD:re

cc: Southeastern Utah District Health Department  
Mike Owens, EPA Region VIII

INCORPORATED

August 31, 2009  
Div. of Oil, Gas & Mining

150 North 1950 West • PO Box 144820 • Salt Lake City, UT 84114-4820 • phone (801) 536-4000 • fax (801) 536-4099  
STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

APPROVAL ORDER: Modification of Approval Order
DAQE# AN 2952001-03 by Adding Equipment

Prepared By: Tim De Julis, Engineer
(801) 536-4012
tdejulis@utah.gov

APPROVAL ORDER NUMBER

DAQE-AN2952003-05

Date: June 30, 2005

COVOL Engineered Fuels LLC
Source Contact
Keith Thompson
(801) 984-9400

Richard W. Sprott
Executive Secretary
Utah Air Quality Board

INCORPORATED
August 31, 2009
Div. of Oil, Gas & Mining
Abstract

Covol Engineered Fuels, LC (CEF), proposes to modify the existing, blended coal preparation plant in Wellington, Carbon County, by adding equipment items, and increasing annual production. The plant will process as much as 1,500,000 tons of coal per year, utilizing crushers, screens, and air tables to create three different quality, blended coal products. Carbon County is an attainment area of the National Ambient Air Quality Standards (NAAQS) for all pollutants. New Source Performance Standards (NSPS) apply to this source (40 CFR 60 Subpart A, and Subpart Y). National Emission Standards for Hazardous Air Pollutants (NESHAP) and Maximum Available Control Technology (MACT) regulations do not apply to this source. Title V of the 1990 Clean Air Act applies to this minor source. This source does not require a Title V operating permit.

The emissions, in tons per year, will change as follows: $PM_{10} (+7.12)$.

The changes in emissions will result in the following, in tons per year, potential to emit totals: $PM_{10} = 7.91$

The project has been evaluated and found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307). A public comment period was held in accordance with UAC R307-401-4 and no comments were received. This air quality Approval Order (AO) authorizes the project with the following conditions, and failure to comply with any of the conditions may constitute a violation of this order.

General Conditions:

1. This Approval Order (AO) applies to the following company:

   Corporate Office Location
   Covol Engineered Fuels, LC
   10653 South Riverfront Parkway, Suite 300
   Sandy, Utah 84095

   Phone Number (801) 984-9400
   Fax Number (801) 984-9460

   The equipment listed in this AO shall be operated at the following location:

   1865 West Ridge Road, Wellington, Carbon County

   Universal Transverse Mercator (UTM) Coordinate System: UTM Datum NAD27
   4,374.55 kilometers Northing, 520.27 kilometers Easting, Zone 12

2. All definitions, terms, abbreviations, and references used in this AO conform to those used in the Utah Administrative Code (UAC) Rule 307 (R307), and Title 40 of the Code of Federal Regulations (40 CFR). Unless noted otherwise, references cited in these AO conditions refer to those rules.

3. The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.

INTEGRATED TECHNOLOGIES INCORPORATED
August 31, 2009
Div. of Oil, Gas & Mining
4. Modifications to the equipment, or processes approved by this AO that could affect the emissions covered by this AO must be reviewed, and approved in accordance with R307-401-1.

5. All records referenced in this AO, or in applicable NSPS, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary’s representative upon request, and the records shall include the two-year period prior to the date of the request. Records shall be kept for the following minimum periods:

A. Emission inventories Five years from the due date of each emission statement or until the next inventory is due, whichever is longer.

B. All other records Two years

6. CEF shall install the various coal preparation equipment items listed in condition 8, and shall conduct its operations of the coal preparation plant in accordance with the terms, and conditions of this AO, which was written pursuant to CEF’s Notice of Intent submitted to the Division of Air Quality (DAQ) on February 9, 2005, and additional information submitted to the DAQ on February 17, 2005, March 4, 2005, March 7, 2005, March 9, 2005, March 11, 2005, March 15, 2005, April 8, 2005, April 13, 2005, April 15, 2005, and April 19, 2005.

7. This AO shall replace the AO (DAQE-AN2952001-03) dated December 18, 2003.

8. The approved installations shall consist of the following equipment (or equivalent*):

A. Coal handling/Preparation Equipment 40 CFR 60 Subpart Y
   One (1) Crusher
   One (1) Screen
   Two (2) Feed Hoppers
   Three (3) Air Tables
   Various Conveyor Belts, or Radial Stacking Devices

B. Three (3) Fabric Filter Baghouses

C. One (1) Material Storage Silo
   Capacity: 200 tons

D. Various Off-highway Equipment items **
   Front-end Loaders

* Equivalency shall be determined by the Executive Secretary.

** This equipment is listed for informational purposes only.

9. The three baghouses shall control process streams from the air cleaning tables. All exhaust air from the air cleaning tables shall be routed through one of the three baghouses before being vented to the atmosphere. All filtered material collected within each
baghouse shall discharge to an enclosed conveyance device. The fabric filters installed in each baghouse shall have porosity of 0.5 micrometers, or use equivalent technology as determined by the Executive Secretary.

10. A manometer or magnehelic pressure gauge shall be installed to measure the differential pressure across the fabric filters in each baghouse. Static pressure differential across the fabric filter shall be between 1.5 to 6.0 inches of water column. The pressure gauge shall be located such that an inspector/operator can safely read the indicator at any time. The reading shall be accurate to within plus or minus 1.0 inches water column. The instrument shall be calibrated according to the manufacturer's instructions at least once every 12 months. Intermittent recording of the reading is required on a once per operational day basis.

11. CEF shall notify the Executive Secretary in writing when the installation of the equipment listed in Condition #8 has been completed and is operational, as an initial compliance inspection is required. To insure proper credit when notifying the Executive Secretary, send your correspondence to the Executive Secretary, attn: Compliance Section.

If construction and/or installation has not been completed within eighteen months from the date of this AO, the Executive Secretary shall be notified in writing on the status of the construction and/or installation. At that time, the Executive Secretary shall require documentation of the continuous construction and/or installation of the operation and may revoke the AO in accordance with R307-401-11.

**Limitations and Tests Procedures**

12. Visible emissions from the following emission points shall not exceed the following values:

   A. All crushers - 15% opacity
   B. All screens - 10% opacity
   C. All conveyor transfer points - 10% opacity
   D. All baghouse exhaust stacks - 10% opacity
   E. All other points - 20% opacity

Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9.

For sources that are subject to NSPS, opacity shall be determined by conducting observations in accordance with 40 CFR 60.11(b) and 40 CFR 60, Appendix A, Method 9.

13. The following limit shall not be exceeded:

1,500,000 tons of coal processed per rolling 12-month period

To determine compliance with a rolling 12-month total the owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12
months. Records of production shall be kept for all periods when the plant is in operation. Coal production shall be determined by examination of CEP billing records, and/or weight receipts. The records of coal production shall be kept on a daily basis.

Roads, and Fugitive Dust

14. The facility shall abide by all applicable requirements of R307-205 for Fugitive Emission and Fugitive Dust sources.

15. Visible fugitive dust emissions from haul-road traffic and mobile equipment in operational areas shall not exceed 20% opacity. Visible emissions determinations for traffic sources shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Six points, distributed along the length of the haul road or in the operational area, shall be chosen by the Executive Secretary, or the Executive Secretary’s representative. An opacity reading shall be made at each point when a vehicle passes the selected points. Opacity readings shall be made 1/2 vehicle length, or greater behind the vehicle, and at approximately 1/2 the height of the vehicle, or greater. The accumulated six readings shall be averaged for the compliance value.

16. All unpaved operational areas that are used by mobile equipment shall be water sprayed, and/or chemically treated to control fugitive dust. An application of water, or chemical treatment shall be used. Treatment shall be of sufficient frequency, intensity, and duration to maintain the surface material in a damp/moist condition unless it is below freezing. The opacity shall not exceed 20% during all times the areas are in use. If chemical treatment is to be used, the plan must be approved by the Executive Secretary. Records of water, and/or chemical treatment shall be kept for all periods when the plant is in operation. The records shall include the following items:

A. Date
B. Number of treatments made, dilution ratio, and quantity
C. Rainfall received, if any, and approximate amount
D. Time of day treatments were made
E. Records of temperature if the temperature is below freezing.

17. The in-plant haul roads shall be paved, and shall be periodically swept, or sprayed clean as dry conditions warrant, or as determined necessary by the Executive Secretary. Records of cleaning paved roads shall be kept for periods the plant is in operation. The records shall include the following items:

A. Date of cleaning(s)
B. Time of day cleaning(s) were performed

18. The haul road shall not exceed 0.69 miles in combined length, and the vehicle speed along the haul road shall not exceed 10 miles per hour.
19. The storage piles shall be watered to minimize generation of fugitive dusts, as dry conditions warrant, or as determined necessary by the Executive Secretary. Records of water, and/or chemical treatment shall be kept for all periods when the plant is in operation.

20. All conveyors, and radial stacking devices shall be covered, or enclosed along their length. The radial stacker conveyor drop, the truck loading chutes at the product storage silo, and the alternate product loading hopper shall be equipped with telescoping discharge tubes.

**Federal Limitations and Requirements**

21. In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, New Source Performance Standards (NSPS) Subpart A, 40 CFR 60.1 to 60.18, and Subpart Y, 40 CFR 60.250 to 60.254 (Standards of Performance for Coal Preparation Plants) apply to this installation.

**Records & Miscellaneous**

22. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this Approval Order including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded.


The Executive Secretary shall be notified in writing if the company is sold or changes its name.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including R307.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the Division of Air Quality. The Utah Administrative Code R307 rules used by DAQ, the Notice of Intent (NOI) guide, and other air quality documents and forms may also be obtained on the Internet at the following web site:

http://www.airquality.utah.gov/

The annual emissions estimations below include point source, fugitive dust, and road dust emissions, and do not include fugitive emissions, tail pipe emissions, or grandfathered emissions. These emissions are for the purpose of determining the applicability of Prevention of Significant Deterioration, non-attainment
area, maintenance area, and Title V source requirements of the R307. They are not to be used for determining compliance.

The Potential To Emit (PTE) emissions for CEF's Wellington coal preparation plant are currently calculated at the following values:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM\textsubscript{10}</td>
<td>7.91</td>
</tr>
</tbody>
</table>

Approved By:

Richard W. Spratt, Executive Secretary
Utah Air Quality Board

INCORPORATED
August 31, 2009
Div. of Oil, Gas & Mining
November 21, 2006

Mr. Tim De Julis  
Utah Division of Air Quality  
150 North 1950 West  
P.O. Box 144820  
Salt Lake City, Utah  84114-4820

Re: Completion of Construction  
Covol Engineered Fuels, LLC Wellington, Utah Facility; AO# DAQE-AN2952003-05

Dear Tim:

The above referenced Approval Order (AO) was issued to the Covol Engineered Fuels, LLC (Covol) Wellington Coal Cleaning Facility on June 30, 2005. Condition 11 of this AO requires that construction is completed within 18 months. Condition 11 also provides that if construction is not completed in 18 months, Covol must notify the Utah Division of Air Quality (UDAQ) Executive Secretary in writing of the circumstances surrounding the inability to complete construction. Covol is submitting this letter to notify UDAQ that construction will not be completed by December 30, 2006.

Since the permit was issued on June 30, 2006 Covol has installed the operating equipment listed in the AO and has had considerable success in “shaking down” the operation. The primary remaining construction that is required to complete the facility is the installation of paved roads (required by Condition 17 of the AO). However, this last phase of construction has been delayed. Over the past months, Covol has had increasing difficulties obtaining adequate and sustained coal supplies to operate the facility on a continuous basis or at or near capacity. Reasons for this include:

- Providers that were counted on for supplies have less cleanable coal available.
- Certain providers are undergoing internal commercial changes that have impacted the amount of coal available and/or the timing of availability.
- Contracts with additional providers are being pursued; however, the available material must be tested for suitability to the Wellington process before it can be supplied in bulk.

Covol does not wish to invest in paving the roads at the facility until the certainty of the coal supply is assured. The plan going forward is to attempt to secure the required ongoing supply. When an adequate operating supply is secured, the roads will be paved to complete construction. At that time Covol will notify UDAQ that construction is complete.

I appreciate the discussion with you last week concerning this matter and the guidance you provided. Please do not hesitate to call me at (801) 984-3777 if you have any questions.

Sincerely,

Steven P. Van Ooteham  
Regional Environmental Manager

cc: Keith Thompson/Covol  
Jeff Hayden/Covol  
Mike Gipson/Covol – Wellington Facility

INCORPORATED
August 31, 2009
Div. of Oil, Gas & Mining
APPENDIX 4-3

Resume of Individual Conducting the Cultural Resource Evaluation

EarthFax Engineering, Inc.
Christopher T. Jensen  
326 Stadium Avenue  
Provo, Utah 84604  
801-602-6883  
cjensen@canyonenvironmental.com  

INCORPORATED  
August 31, 2009  
Div. of Oil, Gas & Mining

Mr. Jensen is an environmental professional with over ten years experience in the industry. Due to his unique educational and professional background, Mr. Jensen is qualified to conduct numerous aspects of environmental consultation ranging from Cultural Resource (archaeological) evaluations, Biological Assessments, soils evaluations, carbon analyses, and contaminant characterization and remediation. By combining these elements during project planning and permitting, Mr. Jensen delivers quality, cost-effective environmental services for many clients.

EDUCATION

Master of Science Degree in Agronomy with Archaeological Science and Soil Chemistry emphasis. Brigham Young University, Provo, Utah. August 2003.

Relevant course work includes: Maya Archaeology, Case Studies in Environmental Policy, Water/Environment, Environmental Issues, Soil and Plant Analyses, Rangeland Plants, Range Management, Laboratory Safety, Soil Physics, Soil Taxonomy, Statistics, and GIS mapping

Bachelor Degree in Anthropology with a minor in Geography. Brigham Young University, Provo, Utah. December 2001.

Relevant course work includes: Geology, Seminar in Environmental Policy, Maps and Air Photos, Physical Geography, Cultural Geography, Human Osteology, Archaeological Methods, and Historic Archaeology

RESEARCH PROJECTS

Urban and rural planning studies of Indonesia. 1999.
Soil evaluations and environmental changes at Motul de San Jose, Guatemala. 2001-2007.
Marketplace studies and environmental soils analysis in Antigua, Guatemala. 2002.
Design of a constructed wetland to treat agricultural run-off in Spanish Fork, Utah 2001.
Application of oily waste to arid agricultural fields in the West Desert, Utah. 2002.
GIS planning for a new park location for Orem City, Utah. 2003.
Nitrogen fixation studies of compost media for UDOT freeway interchanges, Utah County, Utah. 2003.

EMPLOYMENT

President, Canyon Environmental, Provo, Utah. August 2008 – Present

I currently own Canyon Environmental and oversee business development, operations, and services. Canyon Environmental specializes in a multi-disciplinary approach to environmental services. The
company conducts biological assessments, cultural resource inventories, environmental site assessments, carbon credit analyses and verification services, and focuses on cost-effective strategies to improve efficiencies and coordinate project developments for our clients. Clientele ranges from energy companies, financial institutions, development corporations, holding companies, and governmental and non-governmental organizations.

**Senior Scientist, Miller Brooks Environmental, American Fork, Utah. January 2008 – August 2008**

I oversaw business operations for Miller Brooks in Utah and throughout the Intermountain West. I oversaw environmental site assessments, NEPA project development, Cultural Resource Inventories and permitting, biological evaluations, and assisted in the development of Environmental Impact Statements, and other associated projects. I was responsible for assisting clients in developing projects under the auspices of the National Environmental Policy Act (NEPA), and conducted cultural resource inventories, biological inventories, and regulatory assessments in connection with those policies.

**Southwest Regional Director, AEI Consultants, Phoenix, Arizona. October 2006 – January 2008**

I managed the Southwest Regional Office in Phoenix and oversaw business operations in Arizona, Nevada, Southern Utah, and New Mexico. I began the development of NEPA training for the company including; cultural resource inventories, biological assessments, 404 permitting, and other similar projects. I conducted and oversaw site assessments, subsurface investigations, media sampling, and Property Condition and Safety Assessments for various clients. Project experience includes Phase I and Phase II assessments on tire re-tread facilities, printing facilities, plating and powder coating facilities, commercial office buildings, medical offices, hotels, and apartment complexes. I was responsible for advising clients on ‘Best Management Practices’ pertaining to Hazardous Waste storage, transport, and removal; and in identifying potential safety concerns and proposing methods and procedures to decrease risks within industrial and commercial settings. I was also responsible for overseeing and training staff members, business development, budgeting and minor accounting, and client relationships within the southwest region.

**Environmental Scientist/ Archaeologist, Earthtouch, Inc., Layton, Utah. October 2003 – October 2006.**

I conducted Phase I site assessments and NEPA analyses in California, Oregon, Washington, Idaho, Utah, Nevada, Arizona, Oklahoma, and other locations throughout the United States. I authored Environmental Site Assessment (ESA) reports, soil analyses reports, archaeological inventories, Phase I assessments, and Phase II assessments for Federal and State agencies, commercial clients, financial lending institutions and wireless telecommunications providers. I categorized waste materials and identified potential environmental and safety hazards for industrial and commercial properties. I was responsible for designing sample strategies for various sites and implementing soil and groundwater testing. I prepared samples for transport and reported on laboratory results. I also helped resolve concerns between clients and various government and state agencies in order to expedite project completion and insure the proper implementation of proposed developments.

I conducted numerous cultural resource inventories and biological assessments throughout Utah, Idaho, Arizona, California, Washington, and Oregon. Project experience includes; fiber optic lines, road expansion developments, utility permitting, fuels surveys, historic building and feature recordation, cellular tower development, rock shelter monitoring, and other projects.

**Graduate Research Assistant, BYU Soils Laboratory, Provo, Utah. January 2002 – August 2003.**
I planned, organized, and conducted independent studies of soils, plants, and geography; and documented environmental changes in areas of Mexico, Guatemala, and Utah. The majority of my research focused on using soil chemical analyses for archaeological prospecting and site evaluation. I conducted surveys and assisted in excavations and used soil chemical techniques to delineate and study site specific characteristics and to developed data to identify sub-surface cultural deposits. I developed sample strategies, organized and managed work crews, and supervised student volunteers for two years in Guatemala, Mexico, and Utah. I established contacts with government agency personnel, and worked with local Maya indigenous groups to evaluate agricultural practices and forest management issues. I oversaw sample analysis at the BYU soils laboratory, organized data, and prepared manuscripts for publication. I presented research findings at professional meetings and consulted as an environmental soils expert with various projects in Guatemala and Mexico. I also participated in local research projects in Utah and helped in the development of wetlands to treat agricultural run-off, the development of soil chemical analysis techniques to prospect for archaeological deposits, and monitoring stream flow on the Provo River. Other research projects include; the testing various composting materials for use on I-15 freeway interchanges, identifying Nitrogen fixation of crypto-biotic soils in southern Utah, and the application of oily waste products in areas of the West Desert to improve soil structure and increase agricultural output.


I assessed historic properties and archaeological sites for National Register of Historic Places status for government agencies and private companies. I evaluated sites and properties for various private and government entities. I conducted archaeological surveys and excavations and reported results to clients and government agency personnel. I participated in extensive research to document historic uses of properties included in land exchanges, road construction, and other infrastructure improvements. I worked with clients and government agency personnel through the NEPA process to resolve concerns and develop project initiatives for a positive outcome for all interested parties.


I conducted archaeological surveys and assessments of proposed project areas. I recorded archaeological sites, mapped landscape features and excavated sites for governmental and private contractors. I prepared reports and data to be included in Environmental Assessments (EAs) and Environmental Impact Statement (EIS) documentation. I edited reports, prepared artifacts for storage, and assisted other professionals within the company.

Student Volunteer, Brigham Young University Archaeological Field School, Austin, Texas and Utah County, Utah. May - August 2000.

I excavated Paleo-Indian sites in Texas and Utah with other student volunteers. I collected and described artifacts, kept field notes, and prepared artifacts for analysis. I analyzed stone and bone artifacts, prepared reports and reported findings to other students in a forum. I also participated in project planning, and logistical support to provide students and faculty personnel with food, water and sanitary facilities.

On the Kay’s Cabin archaeological site, I conducted soil chemical sampling for phosphates and trace elements to assist in the delineation of sub-surface features and potential cultural resources. The soil investigations identified an additional Fremont Indian pit-house, and other features that provided crucial data for understanding the site. These findings are currently under review, pending additional data prior to publication.

I helped assess, organize, and conduct archaeological investigations of various structures within the site of Piedras Negras during the summer field season. I organized work crews for the field laboratory and conducted analysis of micro and macro-botanical samples from archeological sites. I organized artifact collection and storage while overseeing the field laboratory, and maintained necessary camp equipment such as water pumps, water filters, generators, and other electronic and mechanical equipment.

SELECTED ARCHAEOLOGICAL PROJECT EXPERIENCE

Oil field leases and access permits (cultural and biological clearances) Tribal and Federal lands
Beehive Fiber Optic Line – Wendover to Baker, archaeological survey and testing
Evaluation of historic structures in Gold Hill, Utah – Tooele County
Mills Junction near Lakepoint, survey and testing
Historical documentation of the Handy Corner Gas Station on the Historic Lincoln Highway
Monitoring for wireless telecommunications service (WTS) facility installation – various locations
Nextel Communications, surveys and evaluations throughout western United States
Cultural Resource Assessment and site recordation on US Naval Oil Preserve
10400 South Street – Salt Lake City, archaeological survey and historic building assessment
SUFCO Subsidence Mine Monitoring and Survey – Southern Wasatch Plateau
Hinckley Drive Road Improvement Project (SR 79), survey and collection
Joe’s Valley Road Improvement Project – San Rafael Swell, survey and analyses
Martin Quarry Project – Central Utah, survey and testing
Nevada Automotive Testing Center proving Grounds, survey and analyses
Skull Valley Land Exchange, survey and testing
Survey and Testing in Red Cliffs Desert Reserve – St. George, survey and testing
Carbonville Road Project – Carbonville, Inventory
Mona Ridge BLM Fuels Inventory

SELECTED BIOLOGICAL PROJECT EXPERIENCE

Threatened and Endangered Species evaluations for telecom projects throughout California, Nevada, Arizona, Washington, Oregon, and Utah
Wetland and Sensitive Habitat evaluation for the Red-Legged Frog in the Sacramento Valley, California
Biological Inventory of the proposed ACDC gravel pit lease on the Uinta-Ouray Reservation
Biological Inventory of proposed French Drain locations along the White River
Biological Inventory for the proposed Wellington, Utah Walking Trail

KNOWLEDGE AND SKILLS

Public Lands Policy Coordination Office (PLPCO) Archaeological Permit # 177
AHERA Building Inspector (#D10620)
National Environmental Policy Act (NEPA) regulations.
Soil chemical prospecting techniques for archaeological sites.
C13/C14 carbon analyses for identifying early agricultural corn production.
Carbon sequestration verification services.
RCRA regulations and procedures.
40-Hour HAZWOPER Training.
Plant and soil analysis.
Stream flow monitoring and water testing procedures.
Soil and plant sampling and analysis procedures.
Mapping programs including; Arch View, Arch Map and Surfer.
Soil map generation and evaluation.
TOPCON total station mapping and various GPS mapping techniques.
ICP/AES analysis procedures.
Atomic Absorption analysis procedures.
Fluent Spanish (speaking, reading, writing).

AWARDS
Recipient of the 2003 BYU Graduate Student Association Research Presentation Award
Graduate Student Assistantship 2001-2003
Tuition Scholarship 2001-2003

AFFILIATIONS
Member of the Society of American Archaeologists
Member of the Association of American Geographers

SELECTED PUBLICATIONS AND PRESENTATIONS

First Author

Soil Chemical Investigations of agricultural resource control and distribution in Chunchucmil, Mexico and Motul de San Jose, Guatemala. Christopher T. Jensen. A thesis presented to the Brigham Young University Department of Plant and Animal Sciences in fulfillment of a Master of Science Degree. 2003.


Second Author


Interpreting ancient Maya behavior through soil chemical analysis of activity areas in Chunchucmil, Mexico. Travis L. Thomason, Christopher Jensen, Richard E. Terry. Presentation at the 2002 American Society of Agronomy meetings in Indianapolis, IN.

Soil chemical signatures and Classic Maya land use at Motul de San Jose, Guatemala. Richard E. Terry, Christopher Jensen, Kris Johnson. Presentation at the 2001 American Society of Agronomy meetings in Charlotte, NC.