



## Alton Coal Development, LLC

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February 18, 2016

Daron R. Haddock  
Coal Program Manager  
Oil, Gas & Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, UT 84114-5801

Subject: **Citation # 21163 – Schedule of Backfill for Highwall Trench at Coal Hollow Mine**

Dear Mr. Haddock,

### Introduction:

Following an on-site inspection at Alton Coal Development's (ACD) Coal Hollow Mine on the 12<sup>th</sup> of January 2016, the Division issued citation # 21163. The citation was issued for failure to initiate backfilling and grading of the Highwall Trench (HWT) 2 within the regulatory timeframe of 60 days. Citation #21164 was also issued concurrently in regards to lack of an adequate plan for eventual backfill of Pit 10. While backfill of both voids is related, this memo serves to provide background, narrative and a schedule of continued efforts to complete the required reclamation for HWT2. A plan for the backfill and reclamation of Pit 10 will follow in separate correspondence.

### Background:

The backfill and reclamation plans for open pit excavation in the original Coal Hollow Mine MRP submission used the assumption that mined materials would expand or swell at a factor of 33% from bank (in-situ) to loose (bulk). Based on this assumption, all material mined from open pits would provide adequate backfill to reach Approximate Original Contour (AOC) as well as an excess of approximately 2.7 million Loose Cubic Yards (LCY). The expected excess was permitted to reside in an excess spoil pile.

Over the past 18 months, ACD in correspondence with the Division have determined the actual on-site swell factor to be 10.725%, much lower than initially expected. Due to this difference, what would have been an excess has now become a deficit of available material to backfill all pits to AOC, and the material contained in the excess spoil pile has been required to be re-handled as backfill to completed pits thereby increasing the amount of time required to backfill pits. The swell factor difference has also produced the new requirement to source additional borrow material for eventual backfill of Pit 10 at the conclusion of underground mining (to be addressed in response to citation #21164).

Since the completion of coal mining with Panel 4E in HWT2 at the Coal Hollow Mine in July of 2015, re-handle of the excess spoil pile and backfill activities have been continuous and ongoing in an effort to bring all completed pits back to AOC.

**Current State:**

Based on survey information current as of February 1, 2016, the following table summarizes the amount of material required/remaining to finalize backfill of HWT2 and Pit 10 to AOC.

Area	Void Volume Remaining (CY)	Pile Volume Remaining (CY)
Excess Spoil Pile	-	916,234
HWT (Backfill + Soil)	618,027	-
Pit 10 (Backfill + Soil)	2,016,610	-

The next table summarizes daily actual material movement rates for the Coal Hollow Mine for Q4 of 2015 and the first two months of 2016. These rates are based on survey volumes moved during this time period and account for weekends, holidays and weather interruptions.

	Adjusted Work Day Rate	75% Adjusted Work Day Rate	50% Adjusted Work Day Rate
CY Moved per Day	13,296	9,972	6,648

The 75% and 50% adjusted rates are shown to represent rates that will be maintained once production commences at the North Private Lease permit area and a portion of the production fleet and crew are being utilized in producing coal.

**Backfill Schedule:**

Based on the volumes and production rates above, the table below summarizes expected completion dates for backfill of HWT2 for three different production scenarios.

Scenario	Daily Production Rate (CY)	Workdays Req'd	Completion Date
Full Fleet & Crew	13,296	46.5	4/6/2016
75% Fleet & Crew	9,972	62.0	4/27/2016
50% Fleet & Crew	6,648	93.0	6/9/2016

As there will be a construction and development period for the North Private Lease, the actual production scenario will be some combination of the scenarios above. Therefore, actual completion of backfill for HWT2 should be expected sometime between April 6<sup>th</sup> and June 9<sup>th</sup> of 2016.

**Conclusion:**

Although Drawing 5-38 in the MRP describes backfill activities (except Pit 10) concluding by the end of 2016, the schedule above shows that ACD expects these activities to be completed before the end of July.

Upon completion of backfill of HWT2, approximately 300,000 CY of material will remain in the excess spoil pile. Therefore, approximately 1.7 million CY of material must be sourced from topographical

borrow to complete eventual backfill of Pit 10. Plans for this borrow as well as re-handle and reclamation of the excess spoil pile will be provided in the response to citation #21164.

Please do not hesitate to contact me if you have any questions: 435-705-3832.

Sincerely,

A handwritten signature in blue ink, appearing to read 'A. Christensen', with a long horizontal flourish extending to the right.

Andrew R. Christensen  
Technical Services Manager