

RUN-OFF AND GRAVEL STABILIZATION PROPOSAL  
BLACK HAWK COAL MINE  
Summit County, Utah

Utah Coal & Energy, Inc.

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MAR 24 1980

This proposal embodies an interim procedure to effect temporary gravel retention and run-off control as deemed necessary during excavation for a requisite third entry portal site.

The factors pertinent to this proposal are illustrated on the accompanying Black Hawk mine map and related cross-sections.

Item 1.

It is proposed to construct a retaining wall of large diameter poles along the east side of the dugway leading from portal No. 2. The purpose of this wall is to prevent sloughing of the toe of the gravel slope to the east which at present exceeds the normal angle of rest. As shown on the Section C-C', the slope extends for only a short distance from the toe and then flattens to the angle of rest. On Section A-A', the gradients are shown to be steep to the crest of the hill. However, the initial section of the profile is in part bedrock and, therefore, not subject to mobility.

Once excavation for the siting of portal No. 3 is completed, the finished slope will be as shown on Section C-C'. From the line of Section A-A', gravels will be removed to bedrock and the resulting highwall will wedge into the overlying undisturbed gravel mantle to the south. All slopes will be seeded as per recommendation of James W. Smith in letter dated May 2, 1978.

Item 2.

Direction of runoff is indicated by the green arrows on the mine map. In the immediate area of concern, all run-off which might carry sediment flows to the topographic low northwest of portal No. 1. A sump is proposed at the low point of this dugway and excess water will be pumped through the dugway to discharge onto the gravel flat extending along the base of the extent northwest trending hillside. Such waters will then flow across undisturbed surface into the normal run-off drainage system.

Because the disturbed area is a small portion of a large alluvial fan, impinging waters readily sink into the porous gravels. Except where gradients are steep, run-off is minimal.

None of the run-off from the illustrated disturbed area will flow directly into Chalk Creek. Most will percolate into and through the gravels into the vadose zone. That which trickles over the surface will eventually reach the creek via the normal drainage network developed by natural erosional action.

Item 3.

Monitoring stations to be set in Chalk Creek above and below the correlative disturbed area boundaries will be utilized to evaluate the effectiveness of run-off control.

The total disturbed area embraces no more than about three acres so the amount of deleterious run-off that might enter Chalk Creek is certainly not of great magnitude.

Utah Coal & Energy, Inc.

  
C. Cafarelli, President

22 March 1980

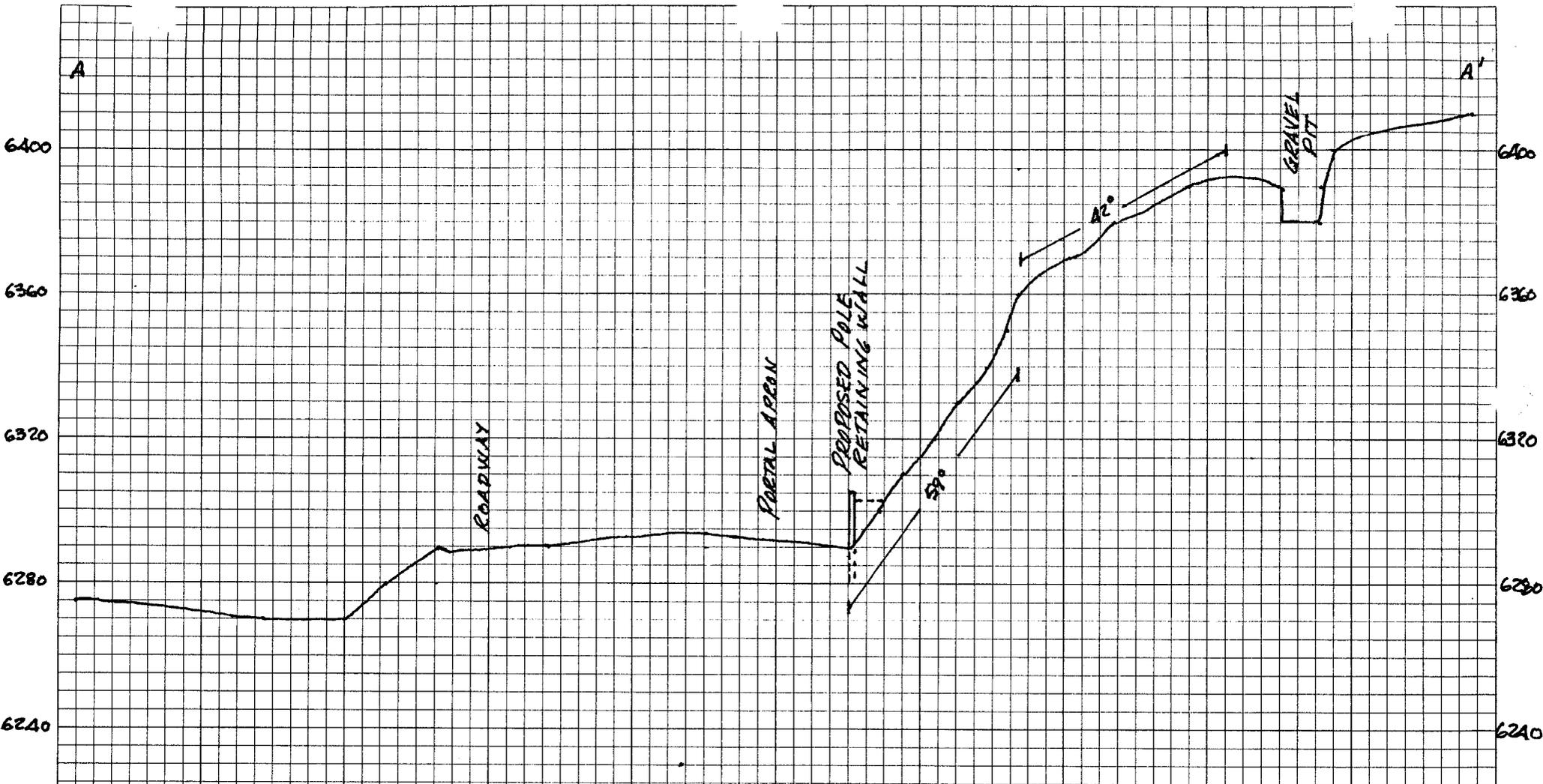
Encl:

Black Hawk Mine Map  
Sections A-A'; B-B'; C-C'

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BLACK HAWK MINE  
RUNOFF & GRAVEL STABILIZATION  
- PROPOSAL -

SECTION A-A'  
Scale: 1" = 40' Hor & Vert

C109

March 1980

B

B'

6400

6400

6360

6360

6320

6320

6280

6280

6240

6240

TIPPLE PAD

SHOP  
OFFICE

ROADWAY

FUTURE  
TIPPLE SITE

25°

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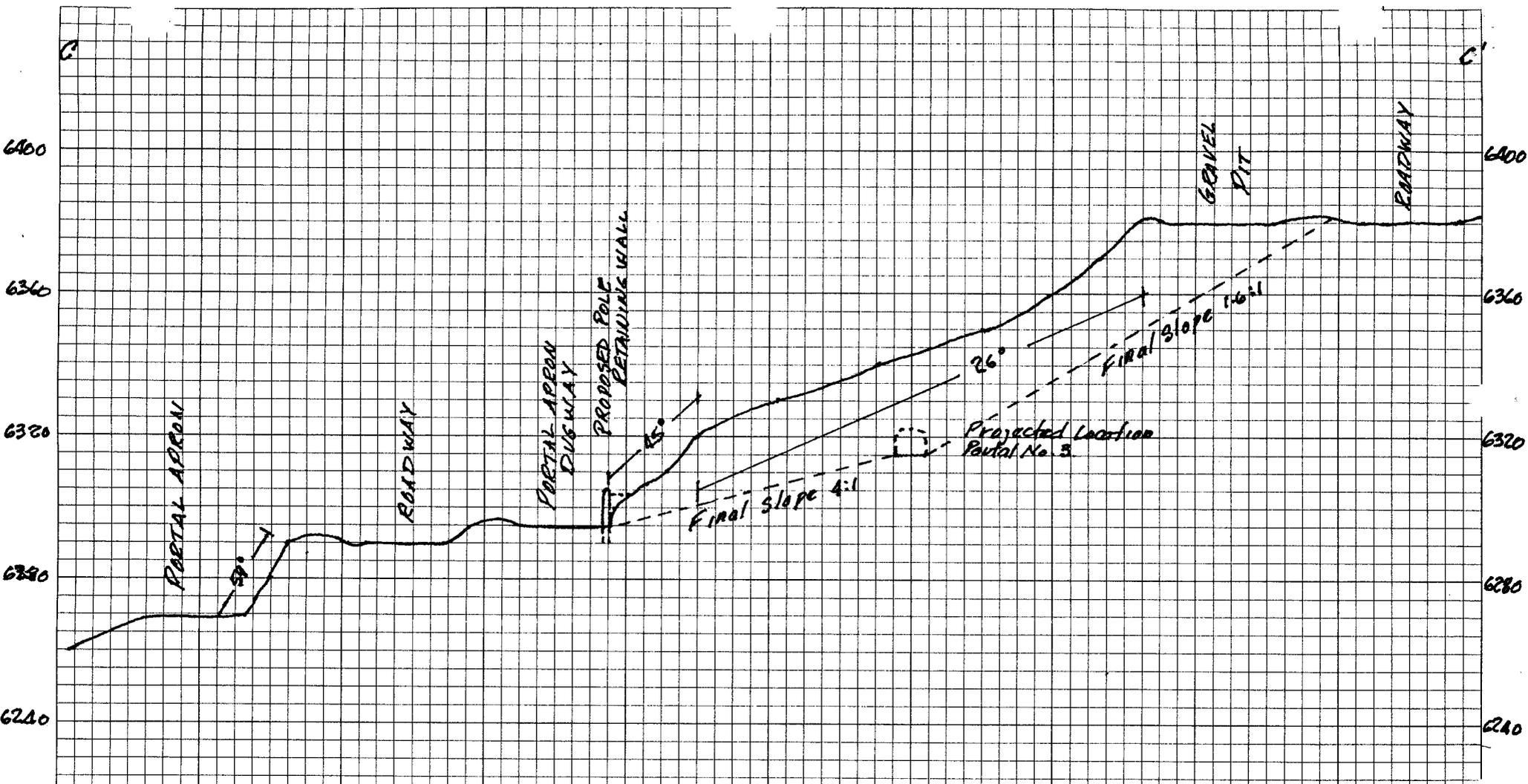
UTAH OIL & ENERGY, INC.  
BLACK HAWK MINE  
RUNOFF & GRAVEL STABILIZATION  
— PROPOSAL —

SECTION B-B'

Scale: 1" = 40' Hor & Vert

CS

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SECTION C-C'  
Scale: 1" = 40' Hor & Vert  
CWS March 1980