GEOPHYSICAL LOGS OF THREE COAL BOREHOLES,
NORTH HORN MOUNTAIN, UTAH

Chapter A of
Coal drilling during 1979 in Emery County, Utah

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This report has not been edited for conformity
CONTENTS

Introduction------------------------------------------------------ 1
References-------------------------------------------------------- 2

ILLUSTRATIONS
[Figures 5, 6, and 7, in pocket]

Figure 1. Index map and generalized geologic sketch map of North Horn Mountain and the southern part of the East Mountain, Emery County, Utah, showing locations of proposed and completed drill holes-- 3

2a-2b. Topographic index maps showing locations of proposed and completed drill holes on North Horn Mountain--------------------------------------------------- 4-7

3. Topographic index map showing locations of proposed drill holes on the "Cottonwood" parcel on East Mountain---------------------------------------------- 8

4. Topographic index map showing the location of the proposed drill hole on the "Meetinghouse Canyon" parcel on East Mountain----------------------------- 9

5-7. Geophysical logs:

5. Drill-hole MC-56A-TC
6. Drill-hole MC-57A-TC
7. Drill-hole W-CD-2

TABLE

Table 1. Summary of information for three holes drilled in T. 13 S., R. 7 E., North Horn Mountain------------------- 2
INTRODUCTION

This is the first in a series of reports on the 1979 drilling program in North Horn Mountain and East Mountain, Emery County, Utah, most of which is within the Wasatch Plateau Known Recoverable Coal Resource Area (KRCRA). The purpose of the program is to evaluate coal resources under three parcels of land which are being considered for possible exchange, as authorized by Public Law 95-554 of 1978, between the Federal government and Utah Power and Light Company. The lands involved are identified as "North Horn Mountain," "Cottonwood," and "Meetinghouse Canyon" (figs. 1, 2a-2d, 3, and 4).

Tertiary and Cretaceous sedimentary rocks are present in the vicinity of North Horn Mountain (fig. 1). The principal coal seams of economic interest, Blind Canyon and Hiawatha, are contained in the lower one-third of the Cretaceous Blackhawk Formation. In the drilling area, the strata dip 3°-5° west or northwest. The geology and coal resources of the area were described by Spieker (1931) and Doelling (1972). Geophysical logs of holes drilled previously on North Horn Mountain were presented in a report by Blanchard, Ellis, and Roberts (1977).

The geophysical logs for this area (figs. 5, 6, and 7) are being released in order of completion and, therefore, are not necessarily in numerical sequence. This report presents the logs of drill-holes MC-56A-TC, MC-57A-TC, and W-CD-2.
Table 1.--Summary of information for three holes drilled in T. 18 S.,
R. 7 E., North Horn Mountain, Emery County, Utah

<table>
<thead>
<tr>
<th>Drill-hole No.</th>
<th>Location</th>
<th>Estimated collar elev. (feet)</th>
<th>Total depth (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC-56A-TC&lt;sup&gt;1&lt;/sup&gt;</td>
<td>SE&lt;sub&gt;1/4&lt;/sub&gt;SW&lt;sub&gt;1/2&lt;/sub&gt; sec. 32</td>
<td>8,565</td>
<td>1,240</td>
</tr>
<tr>
<td>MC-57A-TC&lt;sup&gt;2&lt;/sup&gt;</td>
<td>NE&lt;sub&gt;1/4&lt;/sub&gt;SW&lt;sub&gt;1/2&lt;/sub&gt; sec. 30</td>
<td>8,260</td>
<td>1,060</td>
</tr>
<tr>
<td>W-CD-2&lt;sup&gt;3&lt;/sup&gt;</td>
<td>NE&lt;sub&gt;1/4&lt;/sub&gt;SW&lt;sub&gt;1/2&lt;/sub&gt; sec. 29</td>
<td>8,540</td>
<td>1,118</td>
</tr>
</tbody>
</table>

<sup>1</sup>Redrill of NH-2-CD. Penetrated all coal seams and was bottomed in the Star Point Sandstone.

<sup>2</sup>Redrill of MC-57-TC (lost hole). Probably penetrated the Blind Canyon and upper Hiawatha seams. Hole was bottomed short of the target depth because of poor drill-hole conditions.

<sup>3</sup>Penetrated all coal seams and was bottomed in the Star Point Sandstone.

REFERENCES


Figure 1.—Index map and generalized geologic sketch map of North Horn Mountain and the southern part of East Mountain, Emery County, Utah, showing locations of proposed and completed drill holes.
Contour interval: 80 ft $N_2$; 40 ft $S_2$

Figure 2a.—Index map showing proposed drill-hole locations,
North Horn Mountain, Emery Co., Utah
Figure 2b.--Index map showing proposed drill-hole locations, North Horn Mountain, Emery Co., Utah
Contour intervals: 50 ft in Na; 40 ft in Sd

Figure 2c. -- Index map showing proposed and completed drill-hole locations, North Horn Mountain, Emery Co., Utah
Figure 2d. -- Index map showing proposed and completed drill-hole locations, North Horn Mountain, Emery Co., Utah
Figure 3. Index map showing proposed and completed drill-hole locations, "Cottonwood" parcel on East Mountain, Emery Co., Utah.
CONTOUR INTERVAL 80 ft (40 ft in SE4)

Figure 4. Index map showing proposed drill-hole location on the "Meetinghouse Canyon" parcel on East Mountain, Emery Co., Utah.